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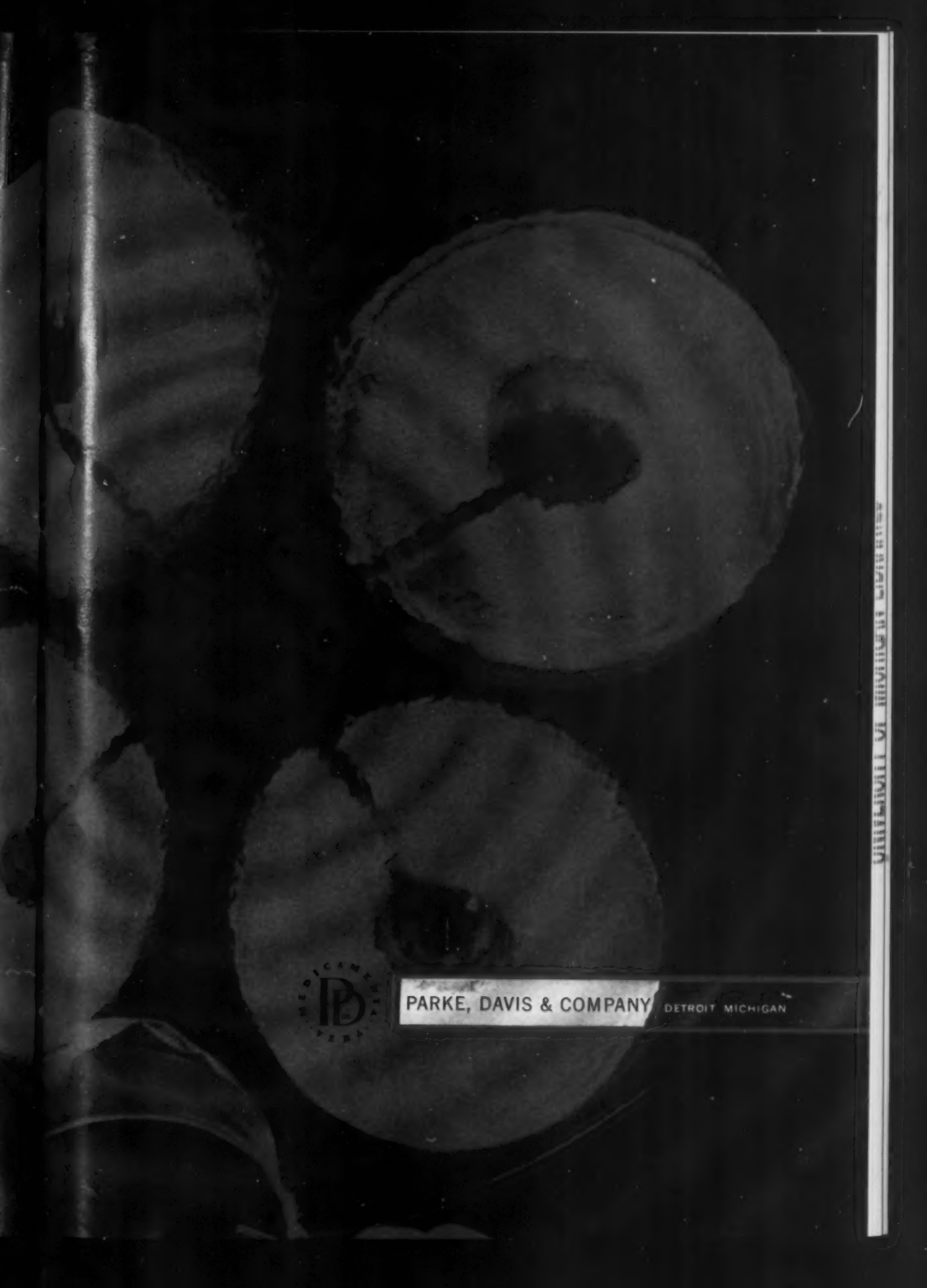
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The JOURNAL *of the Oklahoma State Medical Association*

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Editorials

Oklahoma City Clinical Society

The Oklahoma City Clinical Society, which had its beginning in 1930, will open its 25th annual four day Conference on October 24, 1955.

A large attendance is expected at this very popular meeting held in centrally located and easily accessible Oklahoma City. It is interesting to note that at the present time Oklahoma City is rated third in the nation as a convention city.

As in former years, an outstanding program of postgraduate teaching has been arranged. This includes lectures and discussion by 16 distinguished guest speakers selected from various medical and teaching centers throughout the nation, as well as many Oklahoma City teachers and physicians. Dr. Elmer Hess, of Erie, Pennsylvania, president of the American Medical Association, will give an address at the banquet meeting, October 24th. In addition to the general assemblies and panel discussions there will be daily luncheon round table question and answer sessions, and a clinical pathologic conference. The entertainment will include dinner meetings, the annual Clinic Dinner Dance and the Stag Smoker.

A cordial invitation is extended to all physicians who are members of their County Societies to attend this meeting from October 24 through October 27 at the Biltmore Hotel.

Nurses Loan Fund

The Woman's Auxiliary of the Oklahoma State Medical Association is making an effort to recruit outstanding highschool girls to study nursing. Since students of nursing are no longer slaves but are students, their education to be nurses costs more than many of them have. To help these girls the Auxiliary has established a student loan fund. Such a good job of recruiting has been done that the loan fund of $4,000.00 is exhausted. They are appealing to the doctors to help build it up, asking for contributions of $10.00 or more. Let's not just "let Joe do it" —let's everybody do it.

Polio Vaccination

Every conceivable effort has been made by the N.I.H. (National Institute of Health) and the L.B.C. (Laboratory of Biologics Control) and many hard working advisors to insure the safety of poliomyelitis vaccine. Most of the difficulty appears to stem from two sources (1) haste and pressure from the N.F.I.P. (National Foundation for Infantile Paralysis) (2) lack of complete understanding of the behavior of the virus under conditions of manufacture on a large scale.

The haste of the N.F.I.P. is apparent from the order for 27 million cc. of vaccine in August, 1954, in anticipation of a favorable Francis report. "This was done to encourage the manufacturers to stay in production after the field trials."[1] This haste appears to have influenced the licensing procedure. "A detailed record of events in manufacture and testing (a protocol) has been successfully used for many years for many products to evaluate compliance by the producer with regulations and standards. Many biologic products are released directly by the manufacturer, some are required to await protocol review by the L.B.C. and others are routinely tested by the L.B.C. before release. *The procedure of release on protocol review would not ordinarily be applied to a new product, but the situation with respect to poliomyelitis was unique. A great deal of experience had been accumulated in a short time.*"[1] Not all the vaccine was released on protocol alone—about half had been tested by the L.B.C.

The unpredictable behavior of the virus is apparent from the Surgeon General's report. In some instances a positive culture was obtained from pooled vaccine when cultures of vaccine of individual strains before pooling were negative. In other instances when the same lot of vaccine was tested by more than one laboratory the results were not the same. Some got positive cultures and others got no growth.

On May 26, 1955, only 29 days after the Cutter vaccine had been recalled an amend-

ment to the minimum requirements for testing was issued:

Tabular Summary of Amendments to Minimum Requirements for Poliomyelitis Vaccine

Original	Revised
Single Strain Pool	
1. Test 1 milliliter per liter of material.	1. Test minimum of 500 cc's per pool.
2. Must have 1 negative test.	2. Must have 2 consecutive negative tests.
3. No restriction on reheating.	3. Can reheat only once; if this is done, it must be followed by two successive negative tests 3 days apart.
Trivalent Pool	
1. Test 1 milliliter of material.	1. Test minimum of 1,500 cc's of material.
2. No specific restriction on number of times material can be reheated, although conventionally not done more than once.	2. Cannot be reheated.
3. Must have 1 negative test.	3. Must have 1 negative test.
Final Container	
1. Not tested for live virus.	1. Test random samples of filled bottles to determine if there has been accidental contamination by polio virus.

Criteria for Release of Vaccine Already Produced

Lots Produced but not Yet Released	*Lots Already Released, Now Being Recleared*
Vaccine in this category is being re-tested in larger volume to approximate as nearly as possible the tests for new material according to criteria established by Technical Committee on Poliomyelitis Vaccine.	Vaccine in this category is recleared if epidemiological evidence demonstrates that it can be used with safety or if retested.

This rate of progression is quite rapid but is in keeping with the whole program. Since the trivalent pool cannot be reheated, the manufacturers must do everything possible to insure inactivation prior to that point. Whatever is done must not deprive the vaccine of its potency. It seems obvious that a good deal more time will be required before we can be assured of both safety and potency. At least three of the 14 lots used in the field trials were of pool antigenic quality. Two of these three were used in Oklahoma and we are faced with the realization that Oklahoma's Polio Pioneers were not demonstrably protected.

This points up the difference in the philosophy of the physician in practice and the physician or organization interested in the over all picture of disease prevention. The over all picture of a decline in the rate of poliomyelitis may warm the heart of the public health man, but the practicing physician and the parent cannot be happy unless he knows with certainty that the method of reducing the over all morbidity is harmless to his particular patient and his particular child.

The great haste to protect children seems most altruistic but in reality is a reflection of our basic American materialism—let us get on with it for tomorrow we may die and that would be the end of everything.

The development and application of tetanus toxoid, of diphtheria toxoid, of whooping cough vaccine was not accelerated by a heave by a lay organization and by reams of newspaper publicity. Today most all children are immunized against these diseases in a safe and sane manner. Morbidity and death rates from these diseases have steadily declined. Today the doctor in practice sees them rarely. The American biologic manufacturers have been most reliable in developing and improving biologicals and in the utilization of knowledge acquired by research people everywhere. They have been most generous in grants for further research, letting the chips fall where they will. When the N.F.I.P. ordered 27 million cc. of vaccine at the end of the field trials, it grabbed the ball and ran away with it. Maybe we have learned a lesson.

1. Public Health Service Technical Report on Salk Poliomyelitis Vaccine. June, 1955.

Scientific Article

5 Androsten-3 beta, 16 beta-Diol, A STEROIDAL *Hypotensive and Bradycardic* AGENT

COYNE H. CAMPBELL, M.D. and MAX N. HUFFMAN, Ph.D.

The C_{19} steroid, 5-androsten-3β,16β-diol, was synthesized in the Section of Organic Chemistry of the Oklahoma Medical Research Foundation in 1953.[1] The compound was found by Doctor Elva Shipley of the Endocrine Laboratories, Madison, Wisconsin, to possess no androgenic and doubtful myotrophic action in the young, castrate male rat. Bioassays performed by Professor Allan Stanley at the University of Oklahoma School of Medicine, using young, intact male rats, indicated that 5-androsten-3β, 16β-diol had no myotrophic action and that the diol, furthermore, produced no weight changes in the adrenal and the thymus glands. When this steroid showed unusual properties in the fish anesthesia test[2] (using the *Gambusia affinis*), it was decided to submit it to a brief clinical trial in psychiatric disease. In the the meantime other screening programs had shown the compound to possess a bradycardic and hypotensive effect in the normal, nembutal-anesthetized dog. These latter findings were of special interest to us, in line with our theory that steroids may selectively anesthetize certain sub-cortical areas of the brain.[3] We, therefore, elected first to determine whether androsten-3β,16β-diol had actual hypotensive and bradycardic effects in the human.

The steriod was first cautiously administered to senile—or near senile—arteriosclerotic patients at the Coyne Campbell Sanitarium, these patients having been under custodial care for periods of time ranging from one month to several years. It was felt that such patients would be minimally subject to suggestive influences and would, furthermore, show no further blood pressure lowerings due to hospitalization alone. The androstenediol was dissolved in an emulsifying oil, 2.5 mg. per ml., and administered by mouth, freshly emulsified in water, milk or fruit juice immediately before taking. The dose was 10 mg. per day at first, with gradual increases to 50 mg. per day in some patients. The diastolic blood pressures of these patients are shown in Graph A. Over the period of treatment, extending from 8 to 24 days, the pressures fell 4 millimeters in one patient (B. S.), 16 in another (L. F.), and 20 millimeters in the remaining two patients (L.M. and E. M.). It is to be observed that the patient whose diastolic blood pressure fell only four points had a reading of only 68 at the commencement of the experiment.

On the basis of the foregoing results it was decided to submit 5-androsten-3β,16β-diol to a placebo-controlled experiment to establish reality of effect. For this purpose six subjects at the Sanitarium were chosen. These subjects were ambulatory employees of the Sanitarium, with the exception of one (A. C. A.), who was a well-adjusted custodial patient. All subjects, when receiving the steroid, received 20 mg. t.i.d., in a total daily volume of 24 ml. of oil; when receiving placebo, all patients received 8 ml. of the same emulsifying oil three times daily. Each subject was given the prescription from a bottle marked with the code number 352B. The six subjects on the placebo-controlled ex-

THE AUTHORS

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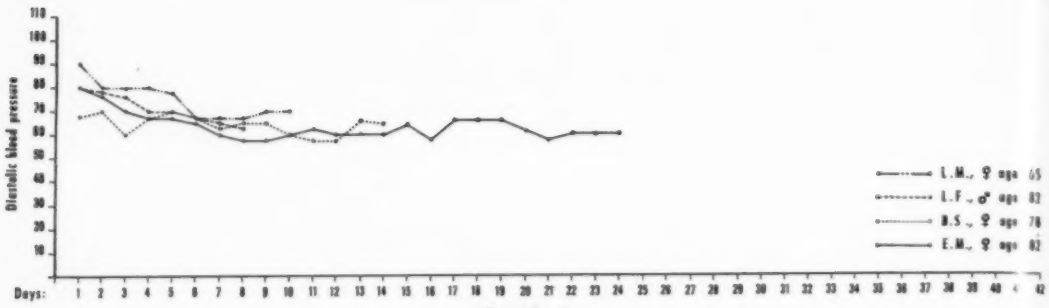


Graph A

periment, however, were divided into two groups in relation to the order in which they were given placebo. One group (Graph 1, Graph 2, Graph 3) was given steriod for approximately 14 days, then placebo for about 14 days, and then steroid for a final period. The other group (Graph 4, Graph 5, Graph 6) received placebo at both ends of the experiment and steroid at the middle period*. Usually blood pressures and pulse readings were taken three times per day, uniformly at 9 a.m., 1 p.m., and 5 p.m., except in the case of subject S. W. (Graph 1), with whom it was not convenient to do pulse readings. Graphs 1, 2, 3, 4, 5, and 6 record the diastolic blood pressure and the heart beat rate for the 1 p.m. measurements only. The data from which these Graphs were constructed are presented in Table I and Table II (1 p.m. measurements only).

Only two of the six subjects on the placebo-controlled experiment had any degree of hypertension (M. W., Graph 2; H. O., Graph 5). In these, the steroid lowered the diastolic pressure approximately 32 points in one (M. W.) and 17 in the other (H. O.). In the other subjects with normal blood pressures, the diastolic lowering amounted to approximately 15 points in S. W. (Graph 1), 15 points in A. C. A. (Graph 3), and 14 points in F. S. (Graph 4). In the sixth subject with normal blood pressure (E. D., Graph 6), the diastolic blood pressure fell roughly 8 millimeters, although the pressure did not rise again during the nine day period on placebo**. In this subject, nevertheless, the pulse recordings show the expected cyclical changes.

PRESCRIPTION	DAY	S.W., FEMALE, AGE 59 (Graph 1) B.P.	P.R.	M.W., FEMALE, AGE 57 (Graph 2) B.P.	P.R.	A.C.A., MALE, AGE 80 (Graph 3) B.P.	P.R.
STEROID, 20 mg. t.i.d.	1	108/64		170/100	90	140/84	84
	2	120/76		164/96	88	125/76	76
	3	109/66		158/90	88	132/72	68
	4	116/70		148/96	96	128/74	70
	5	110/68		------	--	126/68	64
	6	116/70		148/90	90	130/66	62
	7	120/70		146/86	88	128/70	70
	8	120/70		140/84	86	126/66	--
	9	116/68		140/78	80	------	--
	10	116/62		150/86	96	128/66	--
	11	112/60		------	--	128/64	--
	12	110/66		144/86	78	122/66	--
	13	120/68		138/86	74	126/64	--
	14	116/68		140/78	76	128/62	--
PLACEBO	15	112/70		160/78	96	128/68	--
	16	110/70		150/80	78	128/66	76
	17	120/80		150/86	90	130/70	78
	18	120/78		144/86	86	132/74	84
	19	120/76		------	--	132/72	76
	20	------		158/90	88	126/70	78
	21	124/78		168/102	92	128/76	68
	22	126/76		160/96	90	130/78	78
	23	124/76		148/98	89	126/76	70
	24	128/88		176/100	92	130/78	76
	25	130/80		176/100	96	132/76	84
	26	------		168/100	94	138/82	82
	27	------		------	--	------	--
	28	130/80		160/96	80	------	--
STEROID, 20 mg. t.i.d.	29	126/78		------	--	132/82	--
	30	112/70		166/98	86	128/76	80
	31	108/66		164/98	78	130/76	80
	32	110/66		154/90	76	136/80	86
	33	106/66		146/80	76	128/74	78
	34	------		146/80	68	126/70	70
	35	------		136/70	70	126/70	66
	36	110/66		150/70	68	128/68	64
	37	106/60		136/68	69	128/74	70
	38			132/71	66	124/68	66
	39			130/68	68	124/66	66
	40			130/68	66	126/60	60
	41					128/64	68
	42					128/68	66

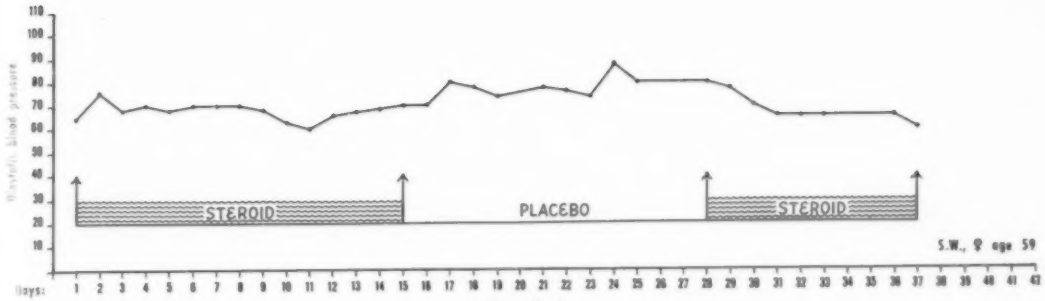
Table I

PRESCRIPTION	DAY	V.B., MALE, AGE 38 (Graph 4) B.P.	P.R.	H.O., MALE, AGE 65 (Graph 5) B.P.	P.R.	E.D., FEMALE, AGE 58 (Graph 6) B.P.	P.R.
PLACEBO	1	136/76	78	176/110	98	106/66	60
	2	132/76	76	170/106	96	110/70	66
	3	136/80	86	178/104	88	136/80	78
	4	126/77	80	------	--	120/75	76
	5	126/78	80	170/100	87	128/68	68
	6	132/80	78	160/108	96	127/71	68
	7	------	--	158/96	86	122/80	70
	8	120/76	72	176/100	89	133/80	78
	9	120/86	80	180/110	98	123/80	80
	10	------	--	178/110	96	120/86	76
STEROID, 20 mg. t.i.d.	11	132/80	76	170/100	88	126/78	76
	12	120/80	80	------	--	118/68	66
	13	126/68	66	170/100	96	110/70	60
	14	------	--	170/100	90	118/68	66
	15	126/70	66	172/100	90	------	--
	16	126/77	68	160/90	86	124/80	68
	17	126/78	60	160/100	86	120/68	66
	18	130/68	64	158/96	76	122/78	68
	19	118/66	64	------	--	110/70	62
	20	116/66	64	170/100	86	110/70	64
	21	------	--	166/96	78	112/70	60
	22	116/68	66	160/94	76	------	--
	23	110/66	66	160/96	76	116/78	60
	24	110/66	66	154/90	70	118/68	62
	25	112/80	60	160/90	76	110/70	66
PLACEBO	26	118/68	68	170/88	76	110/70	60
	27	128/72	70	150/82	70	126/64	64
	28	------	--	160/86	80	------	--
	29	130/76	76	160/82	76	------	--
	30	138/80	86	170/96	78	128/78	68
	31	138/82	82	168/98	80	126/70	70
	32	130/78	80	174/100	88	118/66	66
	33	138/80	78	172/104	86	126/76	76
	34			172/100	80		
	35			180/100	88		
	36			178/104	88		
	37			176/108	90		
	38			172/108	90		

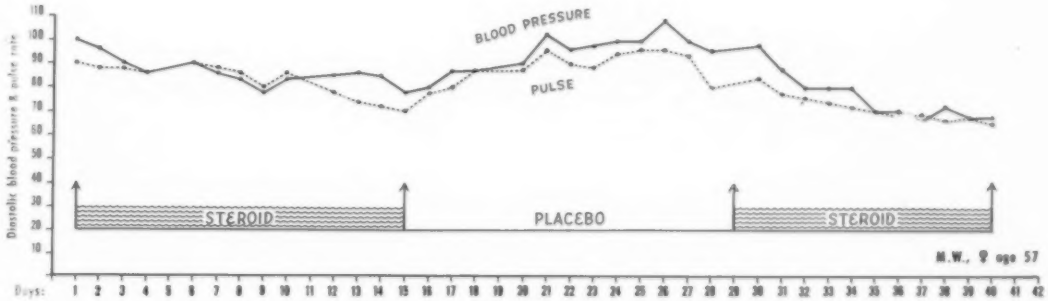
Table II

*This design was suggested by Dr. D. M. Green, Lasdon Foundation, Inc., Yonkers, New York.

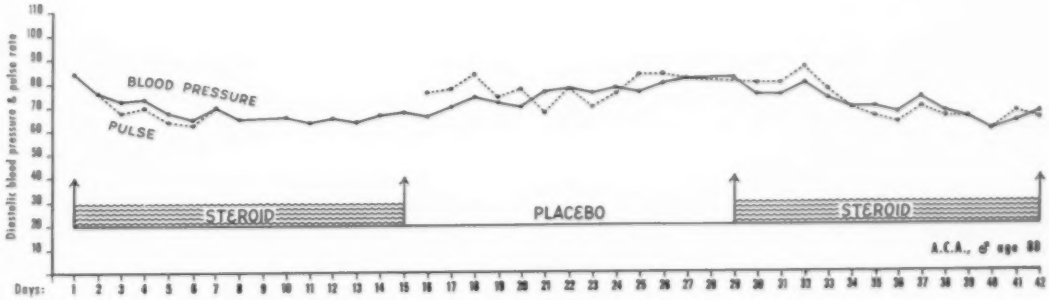
**The differences in blood pressure were calculated from the averages of the last five days of the two adjacent periods showing the greatest change.



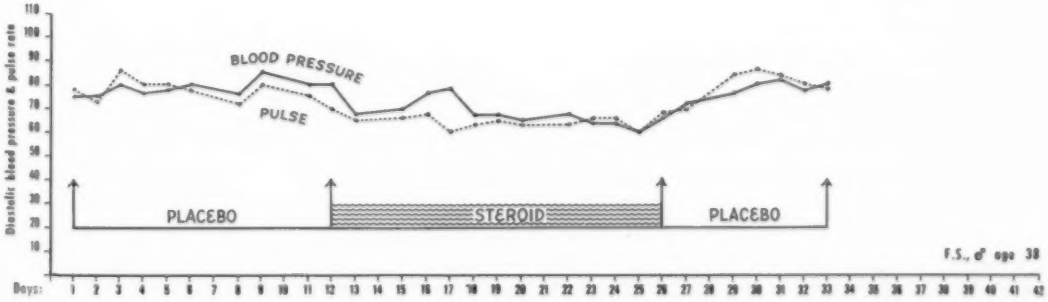
Graph 1



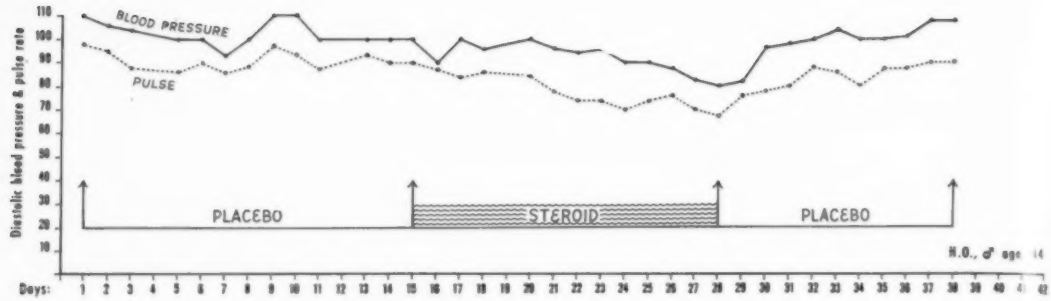
Graph 2



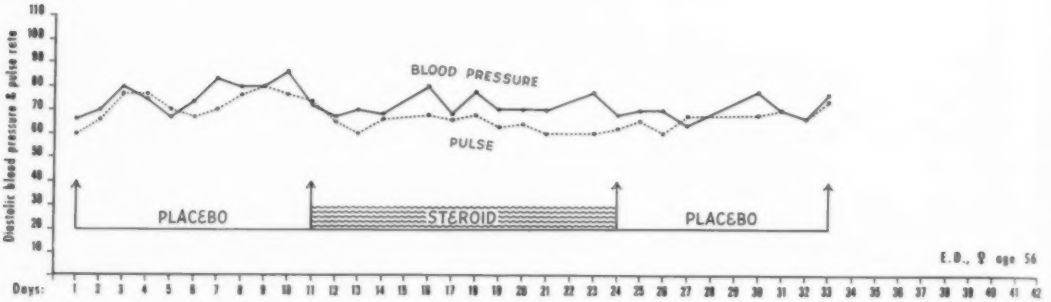
Graph 3



Graph 4



Graph 5



Graph 6

In general the bradycardic effects in these subjects closely paralleled the hypotensive effects.

Discussion

There can be no doubt, from a careful consideration of the data hereinbefore set forth, that the C_{19} steroid, 5-androsten-3β,16β-diol, brings about a lowering of the blood pressure and a slowing of the heart in the human subject. As to the exact position of this new agent in clinical hypertension, we, of course, cannot say. It is not our intention to pursue an evaluation of this material in the various categories of clinical hypertension, preferring to leave this important task to the specialists in the field. We are publishing our data in the hope of stimulating a full investigation of this steroid in hypertension.

It is our belief that 5-androsten-3β,16β-diol has a pharmacologic action similar to that of *Rauwolfia* alkaloid. If this be substantiated, it will be powerfully confirmatory to our theory that certain steroids, in therapeutic dosage, selectively anesthetize or sedate sub-cortical areas of the brain.

It is also our opinion that this steroid will be of value in certain psychiatric conditions accompanied by disturbances in the regulatory mechanisms of blood pressure.

Summary

The steroid 5-androsten-3β,16β-diol causes a lowering of the diastolic blood pressure and a slowing of the heart beat rate in the human subject.

Acknowledgments

The authors wish to express their grateful appreciation for financial support of this research by the Lasdon Foundation, Inc., Yonkers, New York.

Addendum

Since this work was completed we have commenced research with another steroid, 5-androsten-3β-16α-diol, and we have been amazed at its powerful, rapid hypotensive action. We have also observed that concomittant with the lowering of blood pressure there is an alleviation of nervous symptoms. This steroid is being tested under code number 662B.

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Mycetoma in the United States:

Review with Report of A CASE *From* NEW AREA

T. J. HANLON, M.D., M. C. GEPHARDT, M.D.**, H. C. HOPPS, M.D.****

In mycetoma (Madura foot) the chronic granulomatous lesion of an affected part is the result of some fungal infection. This condition typically involves a foot or a leg of an habitually barefoot man engaged in agricultural work.[1, 2] Initially, the lesion is a hard, deep-seated, fixed nodule. It gradually swells and, typically, other nodules develop from it. These become softened and rupture. Draining sinuses develop as the overlying skin undergoes necrosis. The degree of the swelling corresponds to the progress of the infection. The bone is involved in advanced cases. Joints are usually spared even though surrounding bone is attacked. Fascia is particularly resistant to breakdown.[3] Unless secondary infection occurs, there is little systemic reaction and little discomfort.

In his dispensary in Madras, India, Gill observed the condition and gave the first modern description of it in 1842. Colebrook, working in the same dispensary, contributed further observation on "Madura foot." Van Dyke Carter devised the term "mycetoma" as a result of his experience with the disease from 1860 to 1874.[4] The original attempt at classification according to the color of the "granules" was abandoned in favor of the identification of the fungus. The fungi usually exist as saprophytes in the soil or on plants and are thought to gain entrance by trauma, however minimal. About one half are shown to be aerobic actinomyces (nocardia).[1]

Mycetoma is found usually in tropical or subtropical zones where few people wear shoes and their feet come into direct contact with the soil. Cases have been reported from each continent except Australia. Beginning with Kemper and Jameson's first case of mycetoma in the United States reported in 1876, there were 61 reported through October, 1950. Of these 35 were from southern states.[2, 4, 5, 6, 7, 8] Eighteen were from Texas, four each from Georgia and Louisiana, eight from California, two or three from each of nine states and one each from eight states (fig. 1). Canada, Alaska, and Mexico have been given as other North American sources.[4] In a series of 100 cases from the Orient, 92 were men, 91 were farmers, seven were farmers' wives.[1]

The diagnosis of "Madura foot" should be kept in mind when a local, chronic, granulomatous lesion of the foot appears, especially if in a man who is or has been engaged in agricultural or outdoor work. The lesion may be nodular, vesicular, pustular or ulcerative. The patient is in good general condition. He complains surprisingly little of discomfort and usually presents himself late in the course of the disease. Sinus tracts are usually present. Laboratory findings may show mild secondary anemia. Culture of drainage or specimen for biopsy should establish the diagnosis. Study of roentgenograms will show marked osseous degeneration of the infectious and osteoporotic type.

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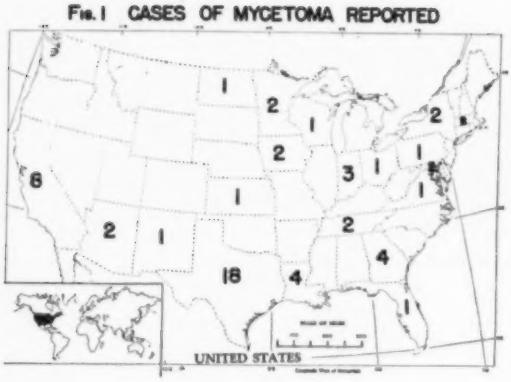
Fig. 1 CASES OF MYCETOMA REPORTED



Case Report

On October 30, 1950, an adult Negro male, aged 66 years, was admitted for swelling and pain of some 14 months' duration in the left ankle. Born in South Carolina, he later lived in Georgia and Missouri before coming to Oklahoma in 1916. He lived on a farm the first 25 years but not thereafter. About 34 years before admission, the patient sprained his left ankle. There were no residuals. Again, seven or eight years before admission, he sustained a severe sprain of the left ankle. It remained swollen and was intermittently painful. In September, 1949, the pain became constant and the swelling of the left ankle increased.

Examination showed blood pressure of 186/84 and a well healed right abdominal scar. Otherwise, the abnormal findings were limited to the left leg. The left thigh and calf were one inch smaller than those on the right. The left ankle was three and one half inches greater in circumference than the right. It was ankylosed except for 5 or 10 degrees dorsiflexion. There was marked swelling of soft tissue about the left ankle, but no heat, redness, or tenderness. There were no draining sinuses. Roentgenogram of the chest was reported as normal at this time. Studies of the left ankle taken on October 31, 1950 showed swelling of the soft tissues, especially about the medial malleolus of this ankle region. Bones of the ankle region, especially the distal portion of the tibia, showed some decalcification. There was some periosteal thickening and calcification along the medial malleolus. The tip of this malleolus showed some erosion and demineralization. The joint space at the ankle was of normal width and the articular surfaces appeared smooth. The three entities suggested were periosteal sarcoma, synovial neoplasm, and a luetic involvement of the joint and bone. The ankle was re-studied on January 22, 1951 and findings were essentially the same.

Laboratory Examinations: Sedimentation rate was 34 in one hour; hematocrit 41; RBC 4,909,000; hemoglobin 12.5 gm.; WBC 6,500; urinalysis negative; Kahn 3+; Kolmer 4+. Spinal fluid cell count, globulin, total protein complement fixation and gold curve were negative. Repeat blood counts were similar. Smears and culture of sputum for tubercle bacilli were negative.

On November 13, 1950, specimens from the synovia of the medial aspect of the left ankle and from the thickened subcutaneous tissue were taken for biopsy. Study was done on the five small irregular fragments of tissue, one of these had a fairly typical appearance of an actinomycotic granule. This was the only such structure found. There was question as to whether or not this was the etiologic agent. Diagnosis at this time was "chronic inflammatory reaction of undetermined specificity; actinomycosis must be considered."

The patient was given penicillin, streptomycin and aureomycin without alleviation of the complaints. Amputation did not seem indicated at that time. When the veteran was re-examined in April 12, 1951, and in August, 1951, the clinical picture of the left ankle had not changed, except that he had difficulty in walking on stairs and uneven ground. Review of all roentgenograms of the chest showed fibrotic strands extending outwards and upwards from the left hilus to the left infraclavicular region. There was a suggestion of a small cavity at the first left anterior intercostal space. This area of pulmonary fibrosis with possible small cavity was interpreted as an old fibrotic TBC with a cavity or pseudo-cavity. The lung fields were otherwise clear. There was no appreciable change in the series of studies. Roentgenograms of the left ankle showed no appreciable change (figs. 2, 3). Suggested as causes of the probable granulomatous lesion were: "A cystic type of tuberculosis appears most likely; mycotic bone and synovial involvement; syphilis; nodular synovioma and

Fig. 2—Left lateral view of ankle including adjacent portion of foot.

Fig. 3—AP view of ankle and adjacent portion of foot.

Fig. 4A—Foot before amputation.

malignant synovial tumor." Physical examination was essentially the same as before except for the well healed scar over the medial aspect of the ankle where the specimens had been taken for biopsy.

Laboratory examinations, including culture for organisms, on two occasions were negative. There was a moderate anemia. Again on August 10, 1951, a specimen for biopsy was taken from the inner malleolar area of the left ankle. Cultures of the material were done also. The specimen consisted of pale gray fibrous tissue. Microscopic study showed tissue composed largely of cicatrizing granulomatous material. In two smaller portions there was more active inflammatory reactions similar to that previously described. A single mycotic granule was seen in this preparation. Here the hyphae were more closely evident. The central portion of the mass was composed of tangled hypha to five or six microns in

Fig. 4B—Cut surfaces (frozen-sawed) of foot. Note obliteration of many joint spaces and altered architecture from proliferation of granulomatous tissue.

Fig. 5—Mycotic granules surrounded by inflammatory exudate. Paraffin embedded, hematoxylin eosin. 180 x magnification (8″ x 10″).

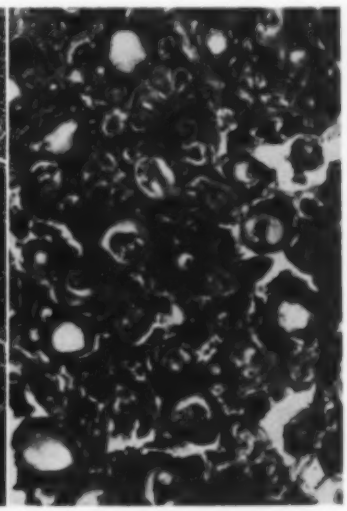


Fig. 6—Detail of mycotic organism, taken from an area included in figure 5, 975 x magnification (8″ x 10″).

diameter. Definite cilia were evident and hypha were branching. There were occasional round bodies with a central dark blue mass which resembled spores. These were are large as 8 to 10 microns in diameter. This single colony lay in the central portion of one of the more active inflammatory reactions described above. Monosporium apiospernum seemed to fit morphologic characteristics best.

Pathologic diagnosis was: "Granulomatous inflammation, probably mycotic etiology and probably Madura foot." Attempts at culturing in deep tube of thioglycolate broth, Sabouraud's agar at room temperature and 37 degrees, and blood agar at both room temperature and 37 degrees were unsuccessful.

Evaluation in April, 1952, showed no essential changes clinically or in roentgenograms of the ankle and chest.

From October 28, 1952, to May 26, 1953, this man was seen periodically because of considerable pain and swelling of the foot. He had marked anemia and a reversal of the A-G ratio. The anemia was thought to be the result of nutritional deficiencies. A gastrointestinal bleeding site could not be shown on roentgen studies. The patient was given several blood transfusions. Gall-bladder visualization revealed stones. In view of the patient's general condition, cholecystectomy was not done. A study of bone marrow was normal. Amputation was not done at this time because the patient was able to get around and had never developed any fistula in his foot, despite two surgical excisions. In the two weeks before admission on February 27, 1954, his foot became so swollen that he had to use a wheel chair. At this time there was marked swelling and induration of the left ankle and foot. Several small openings in the skin on the dorsum and bottom of the foot suggested sinus tracts. However, no drainage could be seen. The foot did not appear to be hot or red. Roentgenograms of the chest and left foot were as previously described.

Now there was only a moderate anemia. The white blood count, urinalysis, serologic tests for syphilis, and the sedimentation rate were unchanged from before. Complement fixation tests for histoplasmosis and coccidiodomycosis were all negative. Skin tests with second strength PPD, histoplasmin, and coccidioidin were negative. It was agreed that this patient needed an amputation. On March 15, 1954, this was done just below the left knee. The specimens were forwarded to the pathologist.

Gross Description: The specimen of the left foot and approximately half of the left lower leg had diffuse swelling of the ankle region of the foot which extended part way down over the dorsum of the foot with no draining sinuses evident. There were areas of scarring overlying the malleoli suggesting old draining sinuses. The foot was frozen and bisected (fig. 4, A and B). The articulation of the callus and tibia was partially obliterated as a result of dense fibrous granulation tissue which was streaked with cream colored softer tissue. This process involved the callus navicular and the callus calcaneus joints also. There was an area of dense involvement of the flexor digitorum brevis muscles which measured 1x5x3x1.5 cm. Sections were taken to include the subcutaneous granulomatous reaction and the affected muscle adjacent to the joint.

Microscopic Sections: Two sections which included the skin and subcutaneous tissue, had flecks of chronic inflammatory reaction. There were extensive old dense scarring with proliferative degenerative changes in the blood vessels and nerves. One of these sections included two abscesses. In one of these abscesses was a mass of mycotic organisms. Two smaller sections from deeper tissues exhibited a more active granulomatous process with multiple areas of suppuration surrounded by very dense collagenous tissue which was infiltrated by lymphocytes and macrophages. Here, too, were masses of mycotic organisms, in the central portion of the abscess. These bodies were 1 mm. in diameter, and were compact and stained darkly with eosin. The central portions were made up of tangled mycelian threads with many thick-walled yeast-like bodies at the periphery (fig. 5, 6). This appearance was similar to that described in the specimen from this same patient two years earlier.

"A diagnosis of Madura foot was suggested at that time and these subsequent studies would confirm the original diagnosis."

Final Diagnosis: Maudra foot, probably produced by Monosporium apiospernum.

Summary

This is the first case of mycetoma (Madura foot) reported as originating in South Carolina, Missouri, or Oklahoma. In which of these states he acquired his infection, we do not know.

In mycetoma, prognosis as to *life* is good even without treatment. Prognosis for cure of the lesion is poor and unpredictable with currently available medicines. Amputation or surgical excision are the treatments of choice. Less radical therapy may be tried first because the lesion is benign.

This case is unusual in that the patient never developed draining sinuses, even following surgical excisions for biopsy purposes. In the absence of skin reactions to second strength PPD, histoplasmin and coccidioidin, as well as negative complement fixation tests for these two fungi, the pulmonary fibrosis shown on the roentgenograms of the chest suggest the existence of pulmonary and pedal mycetoma in this case.

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PERINATAL PROBLEMS

R. L. CRANNY, M.D.

THE AUTHOR

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A new term has recently been introduced into the fields of pediatrics and obstetrics. The term "perinatal" carries an all encompassing connotation, the limits of which are not clearly defined. It would seem unreasonable to speak of the third trimester of gestation to the exclusion of the other two trimesters or to include the first day of life and omit the remainder of the neonatal period. Even the neonatal period is not an acceptable age of demarcation for, as we all know, many of the most difficult problems of infancy often do not make their appearance until several weeks or even several months of age, yet in many cases the fundamental abnormality may have been present from birth. It is evident then that our boundaries are somewhat arbitrary and must include most if not all of pregnancy and at least the first two to four weeks of life, in the full term infant, and a much longer period in the premature infant. As a rule the pediatrician's responsibility begins with the birth of the infant. At times, however, his advice may be sought concerning such prenatal problems as the advisability of future pregnancies, the post maturity syndrome and erythroblastosis fetalis. Certain prenatal abnormalities frequently continue to influence the course of both the mother and the infant even after delivery. Cesarean section has been associated by some with an increase in the incidence of respiratory difficulty in the infant. It is thought that the

fetus may swallow or aspirate excessive amounts of amniotic fluid and that the swallowed material may be regurgitated and aspirated later. Many practitioners therefore advocate removing the infant's gastric contents soon after birth.

Infants born of diabetic mothers, besides tending to be large in size, may exhibit signs of hypoglycemia within hours after birth. Prompt and adequate glucose therapy is often necessary to avoid a tragic result.

Fetal distress is likely to occur when abnormalities of the placenta are present. If the fetus is not stillborn, anemia and shock are uncommonly found. Under even the most ideal circumstances the factor of time may be an unsurmountable one resulting in morbidity or mortality.

The post maturity syndrome has recently been reemphasized as a leading cause of neonatal death[1]. Since the post maturity syndrome is more likely to appear in the older primipara, the management of this type of patient who has exceeded the expected date of confinement by two weeks must be undertaken with great caution. Inasmuch as prematurity is accompanied by an even higher infant mortality rate than is post maturity it is desirable to avoid the precipitation of such a turn of events.

It is always distressing when, after a normal pregnancy and delivery, asphyxia of the newborn occurs. Our present methods of management can best be described as crude. The keynote in therapy is to assure the infant a clear airway. Although it is not always possible to achieve or to maintain, an unobstructed airway remains fundamental to the success or failure of management. Mild physical stimulation such as that afforded by snapping one's finger against the sole of the infant's foot or moderate massage of the affected infant's back may prove to be efficient. More vigorous physical stimulation should be avoided since it is very likely to do more harm than good. It is well to remember that the infant has been subjected to considerable physical stimulation during the process of delivery and I daresay, that arrival in the present surroundings of the outside world must in itself be considered as quite a shock to one who has led such an ideal existence for so long. Various mechanical devices have been advocated as being useful adjuncts in therapy. In certain cases they are undoubtedly beneficial, provided the instrument is skillfully used. In the vast majority of cases, however, it would seem that little or no benefit is derived from their use and there is often serious question concerning harmful effects. The administration of oxygen, either by a loosely fitted face mask or by an intratracheal catheter is to be endorsed. When performed by a skilled operator direct visualization of the upper respiratory passages may occasionally be life saving. However since the manipulation is seldom of benefit, persons unfamiliar with the technique would do well to avoid this procedure. The use of drugs, in an attempt to "stimulate the respiratory center" is mentioned only to be condemned. The narrow margin between the supposedly effective dose and a very harmful dose would indicate that these drugs should rarely if ever be used. It is evident that there is much room for improvement in the management of these infants.

Cyanosis of the newborn is usually caused by an abnormality of either structure or function or both. A useful method of approach in attempting to establish the correct diagnosis is the consideration of the most likely organ systems that may be involved. The respiratory system, the central nervous system, the cardiovascular system and the hematopoietic system must all come under consideration. As is invariably the case the most useful aids in diagnosis are a detailed history and a thorough physical examination. Awareness of the peculiarities of physical reactions to disease at this age is of extreme importance. Infection, mechanical damage, abnormal development and congenital heart disease are likely possibilities. Certain diagnostic procedures may prove invaluable as guides in the choice of therapy. Such procedures as a complete blood count, an x-ray of the chest, one or more blood cultures, a lumbar puncture and subdural punctures may be indicated. Occasionally the patient's condition is so delicate that performing these diagnostic tests imposes too great a hazard. Therapy is dictated by the paramount features of the individual case.

Interest in hyaline membrane disease has increased in recent years. This peculiar condition, which affects the lungs of newborn infants, was previously known as the "four day disease." The onset is always during the first 24 hours of life and the course, which is characterized by signs of increasing respiratory distress and thoracic retractions, may terminate in death in less than 48 hours. Survival for four days indicates a good prognosis for complete recovery. The exact incidence of the pathologic disease is, of course, unknown since the tissues of those patients who recover do not reach the pathologist for definitive diagnosis. However, the consistent correlation between the clinical syndrome and the pathologic findings in fatal cases has made it possible for the clinician to make a positive diagnosis that is probably correct in most instances. Although there is much disagreement concerning the basic pathogenesis of the disease most authorities agree that the use of continuous mist, oxygen and prophylactic antibiotics is of benefit.

The serious problem of jaundice during the immediate newborn period has troubled practitioners for many years. With the discovery of the Rh factor by Landsteiner and Weiner in 1941 the pathogenesis of many cases was more easily understood. The importance of the prenatal determination of the presence or absence of the Rh factor in the blood of both parents is self evident. Although the history concerning previous pregnancies is helpful in predicting the outcome of a given pregnancy, experience has vividly demonstrated that one must be cautious. The possibility of unknown pregnancies, previous transfusions of improperly typed blood and a variety of other ways in which an Rh negative female may become sensitized to the Rh factor or to other similar factors is now appreciated. It is well known that even when both parents are found to be Rh negative by the commonly accepted method of testing, isoimmunization of the mother may occur. Because of the rarity of occurrence of hemolytic disease of the newborn due to one of the minor blood factors such as the Hr factors, the Kell, Duffy, M or N factors, the determination of the presence or absence of any minor blood factors is of no practical importance. It is well to remember however, that cases will occur in which extensive laboratory determinations are of more than academic interest.

Liaison between the individuals responsible for the care of the mother and those persons who will assume the management of the infant is essential. Inasmuch as kernicterus is the leading postpartum complication of hemolytic disease of the newborn, the early institution of adequate preventive measures is imperative. It is now established that while anemia is the chief danger in fetal life and complications of anemia cause almost half of the deaths attributable to this disease, "kernicterus" is a postpartum development and bilirubin is the pigment found in the damaged brain cells[3]. Kernicterus is now believed to be not only preventable but, during its early stages possibly reversible. Since the introduction of exchange transfusion in the treatment of hemolytic disease of the newborn the incidence of partpartum complications due to this disease has been remarkably reduced. The occurrence of kernicterus in many large series of cases in which exchange transfusion has been used is less than 10 per cent. Recent studies have shown no incidence of kernicterus in those affected infants in whom the serum bilirubin did not exceed 15 mg. per cent. Because of the amount and type of laboratory work that is necessary to adequately manage these infants it would seem advisable for delivery to be accomplished in a hospital where adequate facilities and technical personnel are readily available. If this is not possible it may be wise to transfer the infant to such a hospital immediately after birth. Although a cord hemoglobin of less than 15 mgs. per cent is reliable indication for exchange transfusion at birth, it is well established that the serum bilirubin level is the best index thereafter. Since it is much easier to prevent the rise in serum bilirubin concentration than it is to reduce it to safe levels once it has risen we use a rise of 1 mg. per cent per hour as an indication for exchange transfusion. One must be cognizant of the fact that the cord serum bilirubin concentration will be somewhat lower than the concentration of bilirubin in the infant's serum if simultaneously collected samples are compared. Because of this, one must interpolate

the results if an apparently significant increase in serum bilirubin concentration is encountered. Repeating the determination a third time at an interval of two hours after the second determination allows one to pursue the indicated method of management with assurance as to its validity. The indication for repeating the exchange transfusion is precisely the same as it was for instituting the procedure initially, namely a rise in serum bilirubin concentration of 1 mg. per cent per hour.

Certain abnormalities in function of the endocrine system must be added to our growing list of perinatal problems. These conditions assume importance not because of their frequency but because they are not rare and at least some degree of therapeutic benefit can be expected. What would be the effect on the individual family and on the community if thyroid therapy could be inaugurated during the neonatal period in cases of cretinism? The adrenogenital syndrome which may be dificult to recognize clinically in males is usually easily diagnosed in females. At times, however, due to the marked degree of hypertrophy of the clitoris, an erroneous diagnosis of hypospadias is made. Cortisone therapy has proved to be of great value in the treatment of these patients. Those who demonstrate evidence of adrenal cortical insufficiency often require desoxycorticosterone as well as cortisone. These examples serve to remind us of the need for further study.

There is little doubt of the importance of infection as a cause of death during the neonatal period. It is indeed unfortunate that this is the age group in which the greatest diagnostic difficulties are often encountered. The usual signs and symptoms of infection may be conspicuous by their absence. The interpretation of physical findings and laboratory data must be undertaken with caution because of the inability of some infants to respond to infection. Perhaps the best criteria is a high index of suspicion by the alert physician. Prediction of the probable causative organism in a given case is influenced by the location of the infection but the vast majority of infections encountered during the newborn period are caused by a member of the coliform group, the staphylococcus, streptococcus or pneumococcus.

Vomiting is such a common symptom in infants and children that it seldom excites much concern. However persistent vomiting must be considered abnormal and a search made for the underlying cause. The immediate consequences of persistent vomiting in infancy are much more striking than those that occur in older children. Dehydration and alkalosis may appear in a matter of hours in the younger infant. A point worthy of mention is that vomiting or sometimes failure to eat may be the only physical evidence of a severe infection. One must discern between vomiting and regurgitation. Occasionally this will be most helpful in arriving at the correct diagnosis. Simple causes, such as overfeeding either in amount or in frequency must be ruled out. This is not always easy but persistence in careful history taking is usually fruitful.

Vomiting that occurs as a result of intestinal obstruction during infancy is usually a clear cut entity. An accurate description of the vomitus aids in locating the suspected lesion. As a rule in the infant who is more than six hours of age a plain roentgenogram of the abdomen is the only special study that is necessary. The inability to visualize gas in the entire bowel by this age establishes the diagnosis of intestinal obstruction.

Adrenal cortical insufficiency may be more common during early infancy than is generally suspected. Certainly it must be included in the differential diagnosis of the severely dehydrated infant that is vomiting and does not have diarrhea. Determination of the serum sodium and potassium will confirm or deny the diagnosis.

A word concerning changes in formula may be in order. It is the exceptional case in which a change in the type of formula is indicated. Frequently one change quickly leads to another until the parents, the physician, the in-laws and all of the neighbors have exhausted not only the large variety of commercially prepared milks but have also exhausted the infant. A case in point with which I have had experience was that of a 30 day old infant. The history revealed 27 different formula changes during

that time. Although the feeding problem was worse than ever the parents were proud of the fact that they had left no stone unturned in an attempt to get the best for their baby. Attention to the mechanical details of the feeding ritual with emphasis on relaxation and good technique usually solves the problem.

Although vomiting occurs for many other more benign reasons these particular entities have been given consideration because of the seriousness of the underlying pathology.

Intestinal obstruction is a surgical emergency at any age. Although the diagnosis is usually readily suspected in older children it may be unrecognized for many hours when it occurs in infants. The most important feature in the history is the presence of persistent vomiting. The presence or absence of bile in the vomitus is an indication as to whether the lesion is above or below the ampulla of Vater. The stools are invariably decreased in amount and may be absent. It is important to realize that when intestinal obstruction occurs on the first day of life the passage of one or more normal meconium stools, although seemingly paradoxical must not be considered as being against the diagnosis. The presence or absence of abdominal distension depends almost entirely on the level of the obstruction. An x-ray of the abdomen is valuable in establishing the diagnosis. The absence of air in the small bowel after six hours of age confirms the diagnosis of high obstruction which is complete. Malrotation of the bowel, complete atresia, or an obstructive band are the most likely possibilities. Further x-ray studies may establish the definite diagnosis but are not absolutely necessary prior to surgery. Because the circulation to a segment of the bowel may become embarrassed at any time early surgical intervention is indicated. If the patient is moderately to severely dehydrated a definite preoperative diagnosis is valuable. If one can be reasonably certain that the blood supply to the bowel is probably not endangered, allowing sufficient time for partial correction of the dehydration would seem wise. If one cannot be certain of this the operative risk must be weighed against the possibility of damage to the bowel circulation. The desirability of early diagnosis is readily apparent.

Prematurity is by far the most common cause of death during the newborn period. The chance for survival is directly related to the birth weight. As a rule a birth weight of no less than 2000 grams is indicative of about 90 per cent chance for survival, whereas only 50 per cent of those infants whose birth weight is less than 1500 grams but not less than 1000 grams have even a fair chance of survival. Since the majority of deaths due to prematurity occur on the first day of life the problem of prevention becomes greatly magnified. The exact cause of death cannot be determined in many cases although it would seem that failure of the respiratory system is often the deciding factor. Thus far all attempts to support this system have met with minor success at best. The use of oxygen may be helpful in all cases and most certainly must be used when indicated. However, it is well recognized that the prolonged use of excessive concentrations of oxygen probably has an adverse affect on the premature retina. The pathologic changes of retrolental fibroplasia may appear and result in partial or complete blindness. Most authorities agree that no permanent retinal changes occur when oxygen concentration does not exceed 40 per cent. Present data indicates that higher concentrations may be used for as long as seven days and suddenly withdrawn without harmful effect. Continuation of greater than 40 per cent oxygen concentration past seven days necessitates a careful stairstep decrease in oxygen concentration by 10 per cent every five to seven days[3]. Weekly retinal examination by a physician who recognizes the earliest changes of retrolental fibroplasia is essential to the success of this method. If such changes are found, a return to the next highest preceding oxygen concentration for an additional three to five days is indicated. The use of this method of management has sharply reduced the incidence of retrolental fibroplasia in all series reported.

The question of the advisability of maintaining the premature infant's body temperature within the limits that are considered to be normal for the more mature human organism remains unanswered. Sound ar-

guments can be presented in support of both views. However until adequately controlled studies have been evaluated it would seem wiser to attempt to maintain the patient's body temperature near that of the intrauterine surroundings.

Authoritative studies have clearly demonstrated that withholding all oral intake for from 12 to 16 hours is without adverse effect in any newborn[4]. Extension of this period of fasting to 48 hours and in some cases to 72 hours or longer is advisable in premature infants. This allows for the excretion of the edema fluid that is commonly present. Since the ability of the immature kidney to process solute is less than that of the more mature kidney there is a justification if not an indication for the use of a dilute milk mixture as the initial feeding. The inability to suck adequately necessitates the use of gavage feeding. This is done by means of a polyethylene gastric tube which needs to be changed but once a week.

Early reports on the prophylactic use of a broad spectrum antibiotic in all infants weighing 1500 grams or less would seem to to be favorable. Although this regimen is not in general use there is no apparent contraindication to its use when it is limited to a duration of two weeks.

The magnitude of the overall aspect of perinatal care may strike one as being overwhelming and yet we know from past experience that alertness, cooperation and perseverance always result in a better understanding of basic disease processes and ultimately in improved patient care.

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Author's Note: Only selected references in easily available publications are given here. The projected plan is to discuss each problem in detail in future articles with bibliography. —R.L.C.

Relationship of SOCIAL WORK *to* MEDICINE

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Mrs. Dove M. Kull is director of the Welfare Department of the Salvation Army. She was formerly with the Child Welfare Division of the State Department of Public Welfare and also served at one time with the Community Council of Oklahoma City. She has a master's degree in social work and has been a faculty member at the University of Oklahoma and Oklahoma City University.

A half century ago, several physicians in Boston recognized the need of more knowledge concerning the environment and resources of the patient as a factor in treatment. Participation in the progress of charity organizations had brought physicians in touch with the work of social workers, who, through home visiting, became acquainted with the environment of the people they served. To give more adequate service to patients, social workers were placed in hospitals in Boston, thus utilizing medicine and social case work to achieve desirable objectives in certain types of cases.

This movement grew, gaining momentum, until now social workers are on the staffs not only of hospitals, but of private medical clinics, child guidance clinics, and psychiatric clinics. For some time, they have filled an accepted place in the public health field. They are concerned with the control of tuberculosis and education regarding special problems as mental health, rheumatic fever, heart and cancer. They are part of the team pulling to prevent, alleviate and cure disease. This joint interprofessional service now is a challenge to the participants.

What the Social Worker Brings to Medicine

A half century has produced many changes in both professions. Social workers have realized that flexibility and adaptability are essential assets in keeping pace with the rapid progress of the medical world with its new discoveries, improved techniques, and changing concepts. Social work has grown also, assuming professional stature although it may be attuned to a world not of fixed concepts, but one of eternal change requiring constant adaptability.

The philosophy of social work is democratic. It is based on a deep faith in people and their inherent right to choose and to work out their own destiny as well as their capacity to change. It is concerned with the well being of people, in health and disease, it is preventive as well as remedial. Its foundation is the profound belief in the worth and dignity of human beings.

The social worker today is the product of an accepted philosophy and a structured education. To be adequately prepared, the social worker must possess a knowledge of fundamental philosophy and basic concepts, and must have developed skills in fact-finding, study, analysis and interpretation. Since the social worker depends upon the cooperative efforts of many persons in different fields, knowledge is used from such related fields as sociology, psychology, anthropology, economics, and political science.

Teamwork Between Social Workers and Other Professional People

Social work education and experience develop the ability to integrate the many approaches to the attack on social problems and to share the results of study with others who are rightfully interested.

"To be a part of a team means that one must be extremely well prepared in his own field, that he must see himself in relation to the contribution of others . . . it means the will to pull with others and the integrity to withdraw from those parts of an undertaking that are not his. It means the enduring belief that together we can do things which none of us individually can do alone, and that the togetherness makes possible a concept of the job which is greater than the sum of the individual parts."[1]

Mutual Attitudes in Medical Social Work

One factor in medical social work is the way in which the worker relates to the physician's professional responsibilty and purpose. Another factor is the worker's capacity to interpret the patient's needs and the doctor's instructions. If the worker cannot convey his knowledge of the patient to the physician, the patient may not get the service he needs. This places great importance upon essential and suitable communication. In the hospital setting, the worker accepts the physician as the member of the team who has authority. The physician may assign the area of work to be covered by the social worker. Here again attitudes are important, and the major attitude may be that of the physician. His capacity to recognize and accept the contribution of the social worker can limit or enrich the total services to the patient.

The Social Worker's Part in Illness

The social worker, "as part of the professional team, brings to the solution of the problem created by the stress and strain of illness the same techniques and skills that characterize social work in general."[2] This skill is based upon the understanding of the dynamics of human behavior, an ability to interpret this as it concerns the individual patient, and the ability to guide him, through a case work relationship, toward maximum "adjustment to his illness in the light of the limitations it imposes."[2]

The social worker through gaining understanding of the patient can give strong psychological and social support at a time when the normal way of life may be threatened with personal infirmity, family displacement and economic breakdown. Modern medicine recognizes the patient as a person. The social worker looks to the meaning illness has to the patient, and to the areas in which help is needed.

Social work knowledge is of value as the worker is able to translate it into a useful tool to correct or prevent anxiety or personality distortions. Helping the patient to change may be a very slow process with decisions made as the patient can achieve them.

The patient's clear understanding of his illness can throw a light on his path and

change his way of life. Part of the social worker's skill is based on respect for the individual, regardless of status.

In 1939, Bob, in jail for stealing, was released to go to the hospital through the cooperation of his mother and the social worker who had known him in the orthopedic ward of Crippled Children's Hospital where he had spent considerable time. Bob, at 15, was attractive and intelligent. Released from jail, he seemed sullen and not to care. At the hospital, he spoke as if he were worthless. In the worker's daily visits, an effort was made to learn through listening for significant words and through skilled interviewing. Several times he spoke of disease as possessing his body, filling it with running sores and making him unfit to go with girls or marry.

"What do you mean by disease?", the worker asked sympathetically. He stopped a moment, staring ahead, then said in annoyance, "Syphilis. What else could it be?" This, then must be the distorting thing changing a growing boy into a criminal. The worker was familiar with Bob's chart and knew his blood test was negative. In the continuing relationship, the worker learned that an older man had told Bob osteomyelitis is caused by syphilis. The orthopedist joined the worker in reviewing Bob's chart so that Bob could understand it. The physician explained that bruises or injuries can lead to osteomyelitis. Then Bob told something he had not told his mother or the hospital, that as a child, contrary to his mother's rules, he had ridden his bicycle onto the highway. A truck could not stop in time. It struck him, but he felt only a bruise and did not tell anyone. With fears of disease explained away, Bob's attitude and behavior gradually began to change.

The social worker is prepared to do therapy by knowledge of the patient's everyday living experiences, past experiences and relationship with the family and others. As a therapist the social worker cannot impose insights on the patient who may become stampeded into withdrawal or denial, attitudes which will block out application of treatment of the patient.

The Social Worker in the Child Guidance Center

In the child guidance field, psychiatrists and psychiatric social workers have been able to unite their skills and efforts in developing a highly specialized and broad avenue of services for the child with behavior problems. The worker to be effective, must be sound in the knowledge of concepts in order to translate them into practice. The worker's skills in interviewing, fact-finding and interpretation of data often are utilized in developing a study of the child as a contribution toward the plan of diagnosis and treatment.

Psychiatric social workers share in the treatment of children and parents in guidance clinics. The psychiatrist may treat the more disturbed patients in the clinics, or he may treat the child; and the worker, the parent. Or the worker may give most of the treatment in consultation with the psychiatrist.

The psychiatric social worker may help the patient in the modification of both environment and personality. The worker participates in planning treatment, evaluating progress, and continuing a re-appraisal of progress.

The Social Worker in Relation to Psychosomatic Illness

The social worker's contribution in phychosomatic medicine is essential. Since the mind and body are recognized as reacting in unity, it is pertinent to look to the sources of emotional tensions. Chiefly, tensions flow from the home. Of the professional team working with the patient, today it is the social worker who has the most knowledge of the home and family relationships. The modern physician is prone to see the patient in his office or the hospital, therefore, he can utilize data supplied by the social worker who is familiar with the patient's home environment. The worker's relationship can lead to healing discussion with the patient and reassurance and friendly support. The worker's conference with the physician will enable both members of the team to recognize a need, if it exists, for the help of the psychiatrist.

The Social Worker's Role as a Teacher

Although workers realize the interpretative nature of much of their work, they do not accept their roles fully as teachers. The physician of the future is developing a broad concept of his responsibility to his patient. With adequate instruction while he is a student, he can accept social work as a sound extension of his service. Teaching may stem from conferences or become formal as in a

seminar or medical curricula covering such areas as social and emotional factors in illness, meaning and function of social service in hospital or clinic, interviewing, recording, and practice in team relationships.

The Social Worker and the Physician With the Community as a Patient

The promotion of good health, the prevention of illness, and the control of disease are aspects of the area of work in which the social worker and physician attend the whole community as the patient. This requires a knowledge of community resources and facilities, understanding of group and mass psychology and the ability to act in a crisis for the welfare of the community.

The development of a permanent health and welfare program must be approached on "a basic social work premise, namely, that successful treatment of social problems must be based on a recognition of the problems and a willingness to do something about them by the people most concerned."[3] Communities, like individuals, may not respond favorably to the presentation of a ready made health and welfare program, drawn up without community participation. Community organization is the key to developing health programs. "People use services they believe in and understand."[3]

This means working with acknowledged leaders. The Community Council, if the locality has one, may be a medium of approach. Such Councils are made up of representative professional and lay members from agencies, organizations, business and homes.

The social worker can help to guide and direct health services to where the people can understand and share in the expression of their needs and participate in developing a program to meet these needs. With this approach, the two professions can work jointly to promote specialized services in community health and welfare.

Conclusion

On the quality of case worker practice rests effectiveness of service to the patient, the physician, the hospital or clinic and the community. The quality of social work depends upon the competence and caliber of the people employed to administer it. The worker most likely to succeed in medical teamwork is one who has the ability to make quick yet sound decisions, and has the courage to act.[4] The social worker must have the capacity to work with others and the ability to get people to work together to promote the well being of fellow men or "to minister to those who are experiencing some breakdown in their capacity to cope unaided with their own affairs."[5]

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"Polio Pioneers" To Get An Additional Shot

An additional shot of polio vaccine will be offered to the children of Tulsa and Oklahoma counties who were "polio pioneers" in the field trials of 1954. The decision to request more vaccine from the National Foundation for Infantile Paralysis was made by Dr. Grady F. Mathews, Commissioner of Health, following meetings held recently in Oklahoma City and Tulsa.

The purpose of the extra shot is to bring this group of children up to the same standards of immunity which were made available to children who began their series of shots after the initial, experimental tests. It was determined by Dr. Jonas Salk that the vaccine used in Tulsa and Oklahoma Counties during the nationwide test was weakened as a result of the merthiolate preservative used. For that reason, he recommended that a supplemental shot of the newer, more potent vaccine be given.

Represented at the meetings were the following groups: the State Health Department's Advisory Committee on Polio, the Oklahoma City Pediatric Society, the Tulsa County Medical Society's Committee on Polio, the Health Departments of both counties, the State Academy of General Practice and the Oklahoma State Medical Association. Dr. Albert Engelbach and Mr. Frank Chappell, regional consultants for the National Foundation, were also present.

Association Activities

PRESIDENT'S LETTER

It became necessary to have a meeting of the Council of the Oklahoma State Medical Association on August 14, 1955 to discuss and take action on a few problems that were pressing. The main topic discussed and the one on which every councilor was willing to stand and be counted was the change that has been affected in the care of crippled children of Oklahoma. The following is the unanimous recommendation of the council:

> "The Association is in favor of keeping children in their home communities for their medical and hospital care under the Crippled Children's Commission program as practiced prior to July 1, 1955. The Association is also in favor of the physicians continuing to give their services without fee as has been done in the past, and that teaching cases or such cases as require specialist care which cannot be obtained in the local communities continue to be referred to the Crippled Children's Hospital in Oklahoma City. This procedure will continue to assure the accreditation of the University of Oklahoma School of Medicine.
>
> "The Association has refrained from a previous statement in the hope that the special committee appointed by Governor Gary the first part of July would have its study completed before any action was taken by the Crippled Children's Commission in changing its program.
>
> "Since there has been no public statement made by the Chairman of the committee as to when the special committee will meet, the Association feels that it should no longer refrain from an expression of opinion."

The council, as anyone can see from the above statement, concluded that only one problem obtains—namely: The best care for the recipient children; other organizations, institutions, individuals with possibly other interests notwithstanding.

Each of you has probably received reports from different organizations with figures and statements that show variances. In the writer's opinion, after thorough study of these statements and other reports, the whole story is told in neither report.

Your council took the action it did to be effective until a further study and report is made by the committee appointed by Governor Gary.

R. Q. Goodwin

President

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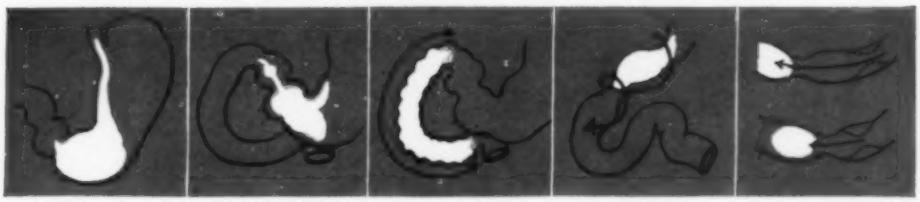

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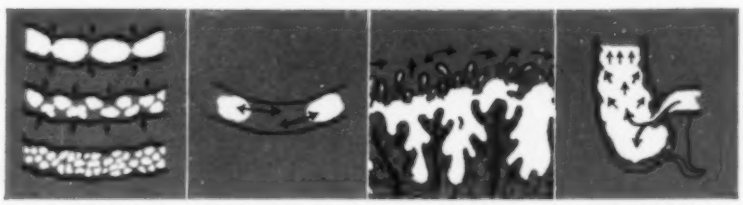

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2400 LINE AVENUE
AMARILLO, TEXAS

W. H. WHEIS, M. D., F. C. C. P.
B. VICTOR YEAKEL, M. D.

July 20, 1955

Editor
Oklahoma State Medical Journal
Oklahoma City, Oklahoma

Dear Sir:

I was fortunate enough to receive a letter from a friend of mine in Tulsa enclosing a copy of your latest necrology report, approved by your Journal and House of Delegates of the Oklahoma State Medical Association, concerning my demise, February 1, 1955. On the basis of this report, I have made extremely unsuccessful attempts to collect my insurance and to have my name removed from the income tax files. They seem to feel, that in view of my present physical condition, this report in your journal, is insufficient proof at the present time.

I would appreciate it greatly if some notice could be placed in your next issue to the effect that, although I no longer reside in Oklahoma, I am still kicking around as well as ever. I realize that living in Texas may be construed by good Oklahomans as the same thing, but, if so, the date should be changed to November 2, 1954.

Thanking you for your cooperation and may I continue in "good health" with your consent, I remain

Very sincerely,

Prescott H. Haralson M.D.
Prescott H. Haralson, M. D.

PHH:mp

The State of Texas
County of Potter

Before me, the undersigned authority, a notary public, in and for said county and State, on this day personally appeared Prescott H. Haralson Known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 21 day of July, 1955

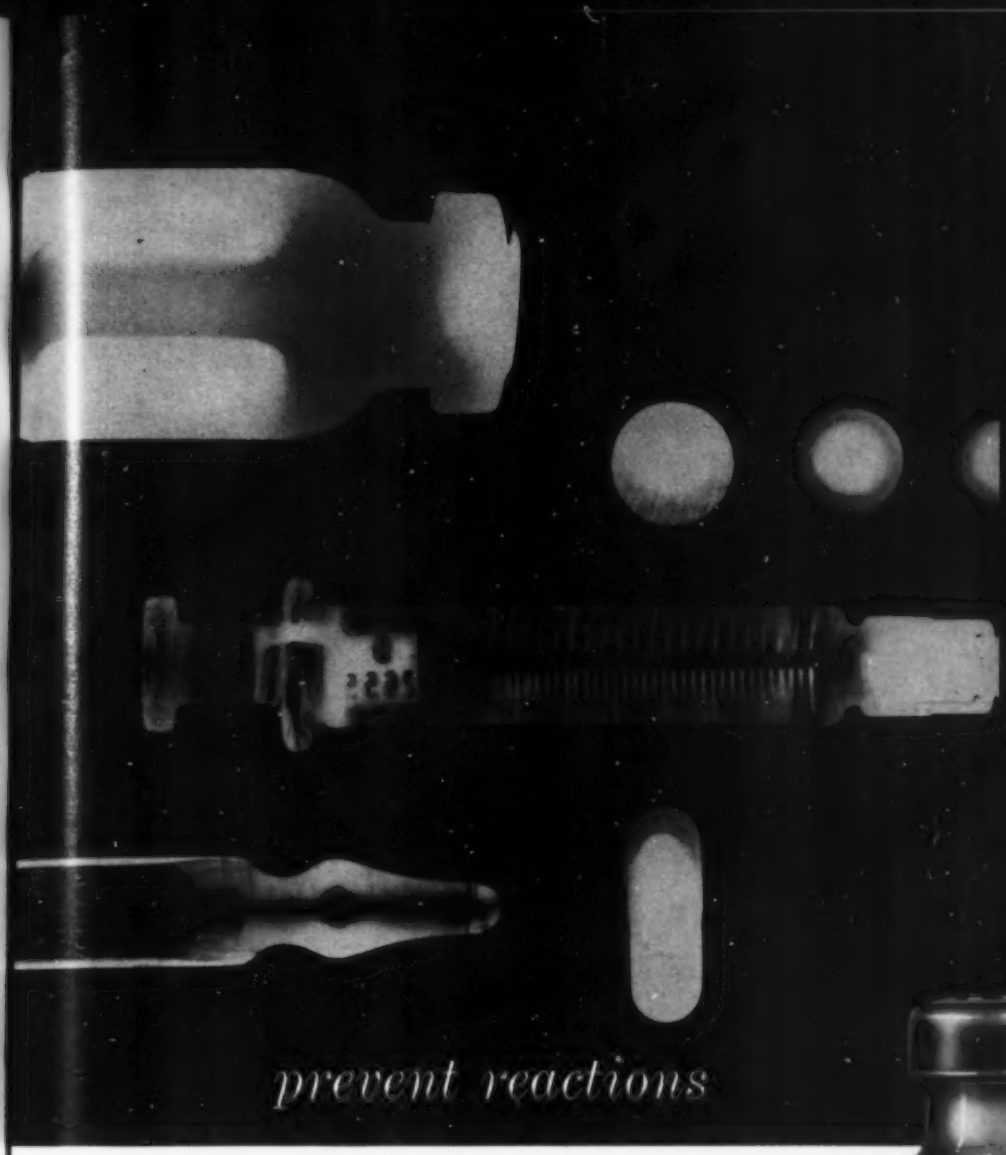
G. L. Lester
Notary Public, Potter County, Texas

Pioneer Physicans' Stories Are Now Tape Recorded

Through the efforts of the Oklahoma State Medical Assistants Society, early day experiences of Oklahoma's pioneer physicians are now tape recorded. Stories that would otherwise be lost to medical history are now permanently on record.

A graphic example of this was recently illustrated by Jim Babcock of the Department of Achives of the University of Oklahoma. He reports that just a few weeks before the death of W. W. Rucks, Sr., M.D., outstanding Oklahoma City physician who died July 14, his reminiscences were recorded by Jack Saunders of the Archives Department.

The recorder and a supply of tape was given to the Department of Archives for the recording of medical history as a state project of the Medical Assistants. First tape recordings were made during the annual meeting in Tulsa in May.



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Book Reviews

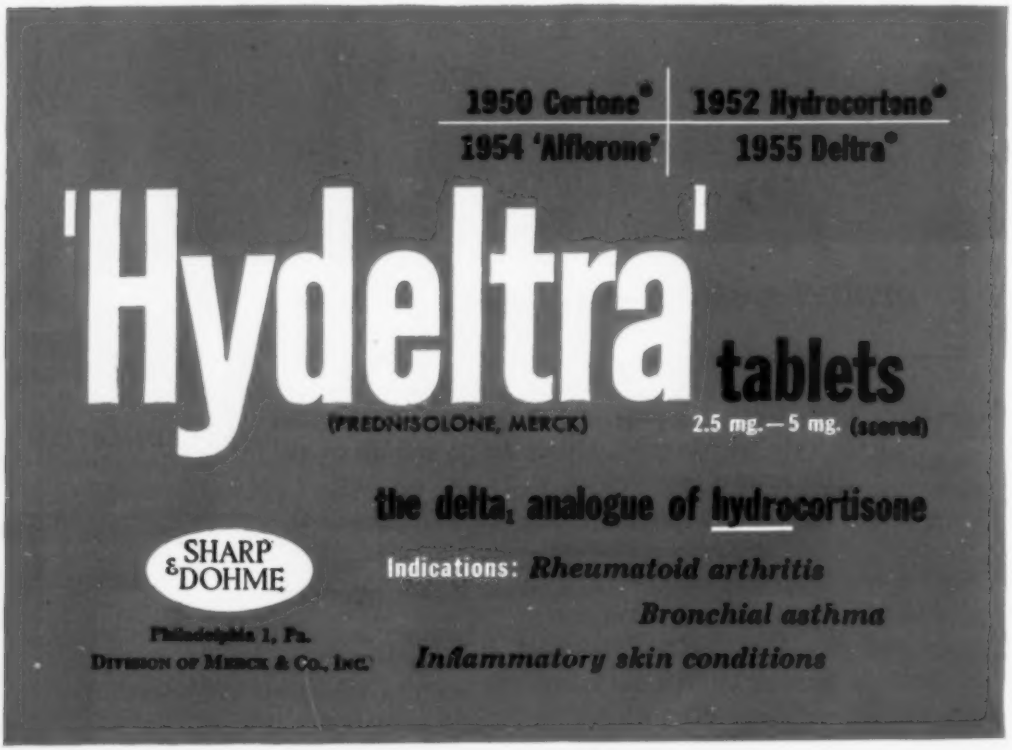
CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY. The Human Adrenal Cortex. Vol. VIII. Edited by G. E. W. Woestenholme. Little, Brown and Co., Boston. 1955.

This volume is the transaction of a panel gathered by the Ciba Foundation in London early in 1954 for the purpose of correlating the extensive recent literature on the adrenal cortex. It is noteworthy that the meeting marked the centennial of the pioneer investigations of Thomas Addison in the same city.

Within the 658 pages of the book are 35 formal presentations and considerable informal discussion among the 60 participants, yet excellent continuity has been maintained. The discussants are outstanding contributors to representative phases of the subject who have presented their data and expressed their opinions in a most worthwhile manner.

The first part of the volume is concerned with basic aspects of adrenal cortical histology, chemistry and physiology and the second part emphasizes clinical aspects of the subject.

There is considerable discussion of histological and histochemical changes in the adrenal gland following various stresses, particularly insofar as the significance of shifts in lipid patterns. The surprising enlargement of the zona glomerulosa of the adrenal cortex after chronic administration of cortisone is ascribed to the state of hypokalemic alkalosis provoked by cortisone and not the direct stimulation of the gland by the fluocorticoid. Hypertrophy of the zona fasciculata of the adrenal cortex in the inmates of German concentration camps is held to be due to the increased demands for glucocorticoids necessary to convert muscle protein into available carbohydrate. This finding is contrasted to the adrenal cortical atrophy seen in retreating Japanese soldiers who existed for long periods on sugar cane and roots. Present status of the painstaking



work of elucidating the intermediary metabolism of the adrenal cortical steroids is summarized and discussed in a straightforward manner. Evidence is presented to support the view that the primary defect in the adreno-genital syndrome is the relative deficiency of a 21-hydoxylase in the adrenal cortex with resultant production of androgenic by-products. There is increased production of pituitary corticotropin to aid the crippled glucocorticoid production which further intensifies androgen production. The beneficial effect of glucocorticoid replacement in correlating this situation is described.

Aldosterone, the highly potent naturally occurring mineralocorticoid, receives its full share of attention though much of the work presented was hampered by the small amounts of the material available. Patients with Addison's Disease treated with aldosterone in doses of 150-200 micrograms daily showed excellent response with rapid onset of effect, regression of skin pigmentation, orthostatic blood pressure regulation, normal salt and water conservation without edema and return of glusose tolerance.

Cushings Syndrome is covered in some detail. It was agreed that in those cases without adrenal tumor irradiation of the pituitary is therapeutically effective.

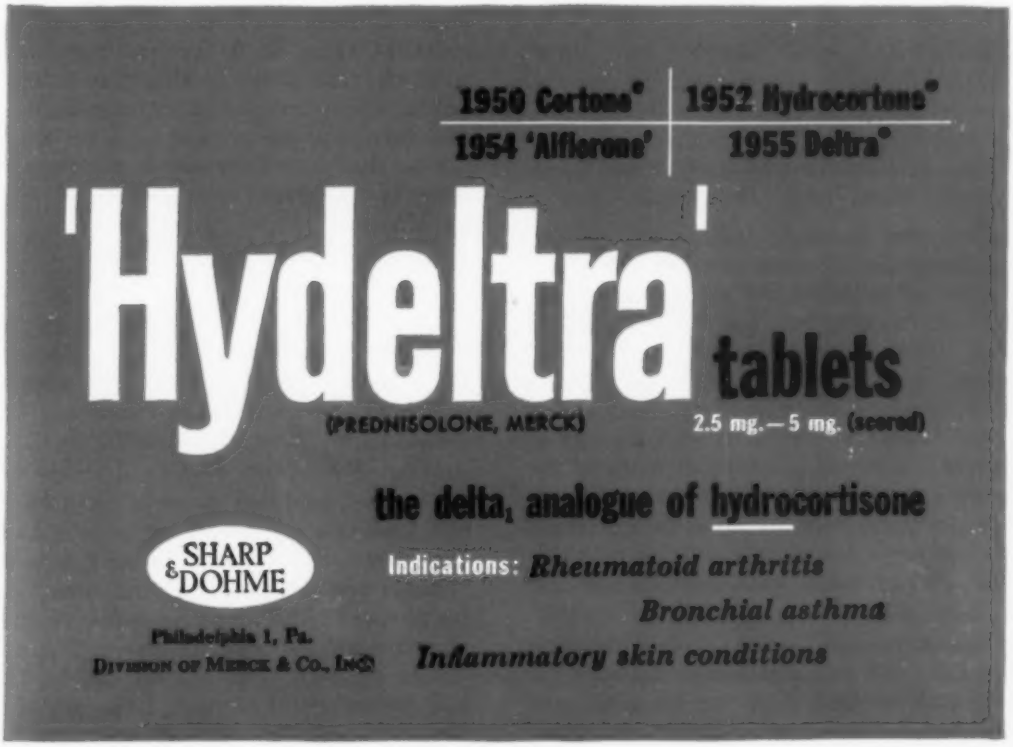
Experience with adrenalectomy and hypophysectomy in the human being is presented.

Changes in adrenocortical excretory patterns are described during combat stress as well as various other psychological situations.

The encyclopedic nature of this volume and the competence of its contributors qualifies it as a valuable compendium of a large part of the welter of data available on the adrenal cortex.—Robert W. Payne, M.D.

THE HISTORY AND CONQUEST OF COMMON DISEASES. Edited by Walter R. Bett, M.R.C.S. etc, with contributions by 17 collaborators. Cloth. $4.00 Pp. 334. University of Oklahoma Press. Norman, Oklahoma.

This book is a compilation of essays on



diseases which have commonly plagued mankind since antiquity. Each essay has been written by an expert on the disease being discussed. The writings are distinguished not only for their completeness but also for the frequent dashes of wit which spice sometimes rather dry discourse.

The chapter on Tuberculosis will be of especial interest to Oklahomans because it was the last formal piece of writing from the facile pen of our late, great, Lewis Moorman.

The editor, in his preface, states that the book is intended mainly for patients but his arrows fly far beyond this mark because the subjects have, of necessity, been treated too profoundly for the average lay reader. The plentiful references appended to each chapter lead to numerous obscure English and continental sources that will appeal more to the serious student or medical historian than to the layman.

This book will find its most appreciative readers amongst the ranks of medical students and physicians.

It can be highly recommended to these groups.—John G. Matt, M.D.

PERINATAL MORTALITY IN NEW YORK CITY, A Study of 955 Deaths Reported by Schuyler G. Kohl, M.S., M.D., D.P.H. Published for the Commonwealth Fund by Harvard University Press, Cambridge, Mass. 1955. Price $2.50.

The author has made an attempt to classify and categorize the outstanding features that contributed to infant mortality in New York City during 1950 and the first quarter of 1951. In an attempt to evaluate the data thoroughly a sample of 1,000 cases, selected on the basis of the percentage distribution during 1949, was compared with the city as a whole. As would be expected, many of the percentages did not hold true and additional patients had to be selected. A further selection was made in that only patients weighing over 1,000 grams at birth were included.

Three groups of patients were studied: stillborns, neonatal deaths within the first five days and neonatal deaths between the sixth and thirtieth day. An impartial and well qualified group studied the cases from the standpoint of "preventability," and "responsibility." Certain conclusions are drawn and enumerated.

"Responsibility factors" were assigned on a percentage basis for the deaths studied. Unavoidable disasters accounted for 55 per cent of the total. High "preventability rates" were found for both premature and mature infants who died during labor.

A comparison of the autopsy findings with the cause of death appearing on the death certificate revealed an agreement in only 50 per cent of the cases whereas agreement was found 70 per cent of the time between the autopsy findings and the clinical cause of death. This would cast serious doubt on the validity of vital statistics reports prepared from data on death certificates. Only six per cent of the cases exhibited no disagreement between the death certificates and the clinical history.

The author suggests that if a panel is to used in this type of study they should pass on all cases and not selected ones and that cases should be resubmitted from time to time to assure consistency.

This report represents a fresh and welcome approach to the study of a difficult problem. Although the report has almost no practical value in its present form, since what was true in New York City in 1950 may not have been true for other communities at that time or at the present time, certain follow-up studies that the author mentions may prove to be of great value.—Robert L. Cranny, M.D.

SHOULD THE PATIENT KNOW THE TRUTH? A Response of Physicians, Nurses, Clergymen, Lawyers. Edited by Samuel Standard, M.D., and Helmuth Nathan, M.D. Springer Publishing Company, Inc., New York, 1955. Cloth, pp. 159. 1955. Price $3.00.

The well qualified group of authors who composed this interesting symposium handle every facet of a complex ethical question, "Should the patient know the truth about his disease?" The concensus is that no single, unequivocal reply can be given. The problem is explored from the ethical, religious, and medical point of view. Everyone agrees that the over-riding consideration is the welfare of the patient. What the patient is told

must be determined by the nature of the disease and by the psychological and religious needs of the patient. If the disease offers no hope of recovery, the physician is governed largely by his knowledge of the patient in telling him the truth. The strong, well-integrated personality may be inspired to live his last days more nobly if he realizes how few they are. Many patients do not want to be told the truth. Others may be comforted by the last rites administered by their particular communion. The physician who may be governed by neurotic impulses in his patient relationships is cautioned about the manner in which he handles this delicate situation.

The authors agree that telling the patient the truth about his malady in fatal cases depends upon sensitive balances, and that in hopeful cases the whole truth may be necessary to engage the patient as an ally in bringing about his recovery.

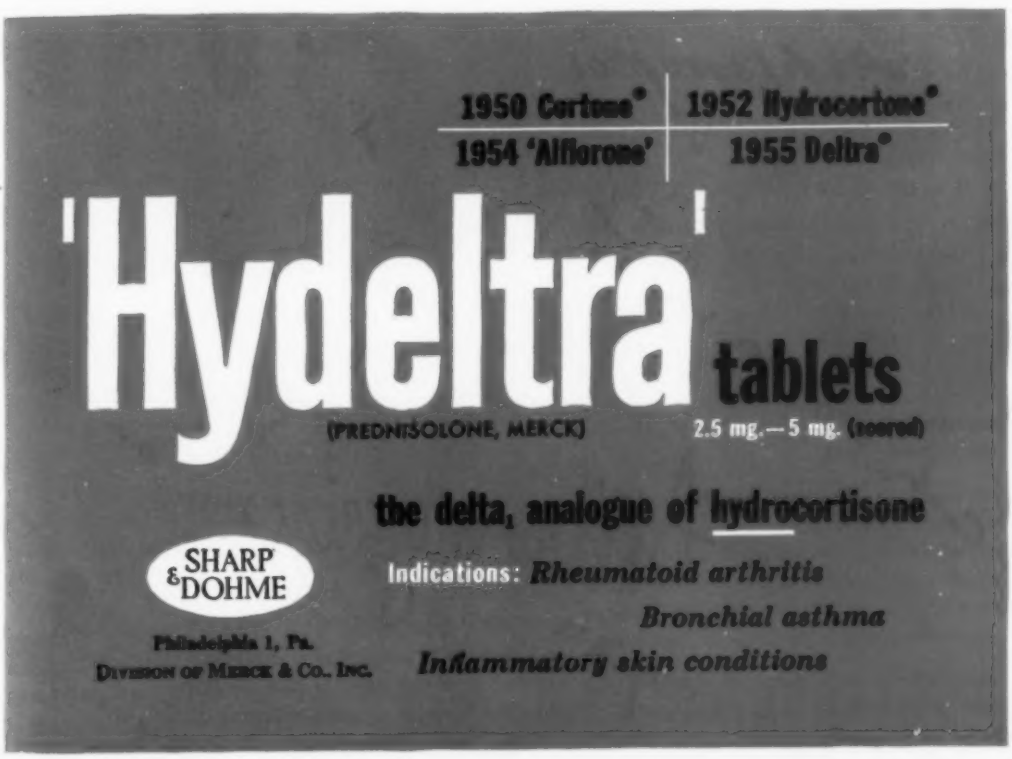
Like the solution to the problem of good and evil offered in the Book of Job, no unalterable answer can be given to the query propounded in these brief essays. But, also like the Book of Job, the catalog of possible solutions is reviewed. The reader must not expect to find untapped nuggets of wisdom

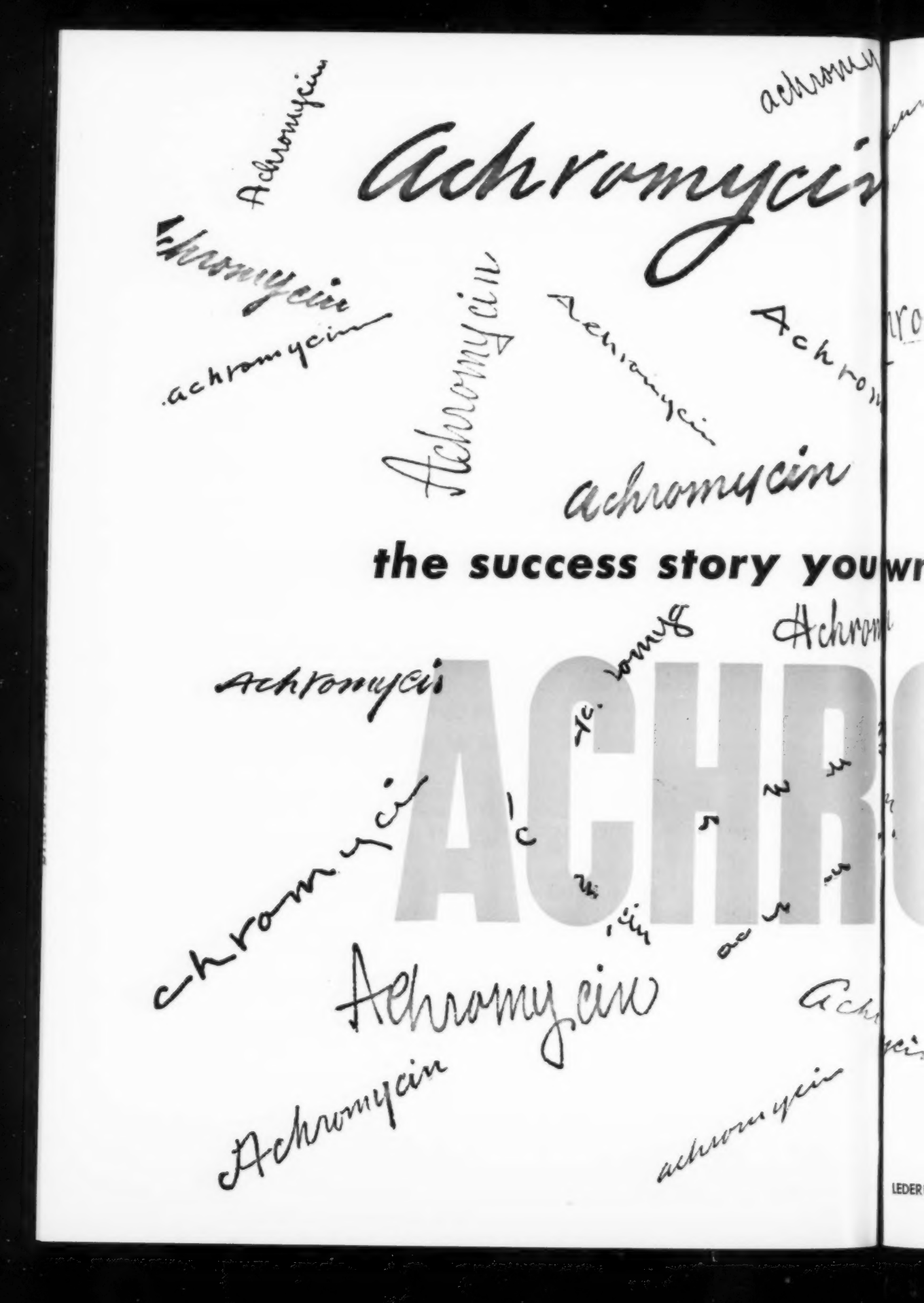
John F. Burton, M. D., Named To A.M.A. Review Committee

John F. Burton, M.D., Oklahoma City, has recently been appointed by the speaker of the A.M.A. House of Delegates, E. Vincent Askey, M.D., to a seven man committee to review the functions of the Joint Commission on Accreditation of Hospitals.

Others serving on the committee are: W. C. Stover, M.D., Boonville, Ind., chairman; Gerald D. Dorman, M.D., New York; George F. Gsell, M.D., Wichita, Kansas; Eugene F. Hoffman, M.D., Los Angeles; T. C. Terrell, M.D., Fort Worth, Texas; and George A. Unfug, M.D., Pueblo, Colo.

The committee hopes to submit a report to the A.M.A. House of Delegates at the meeting next June concerning its findings.

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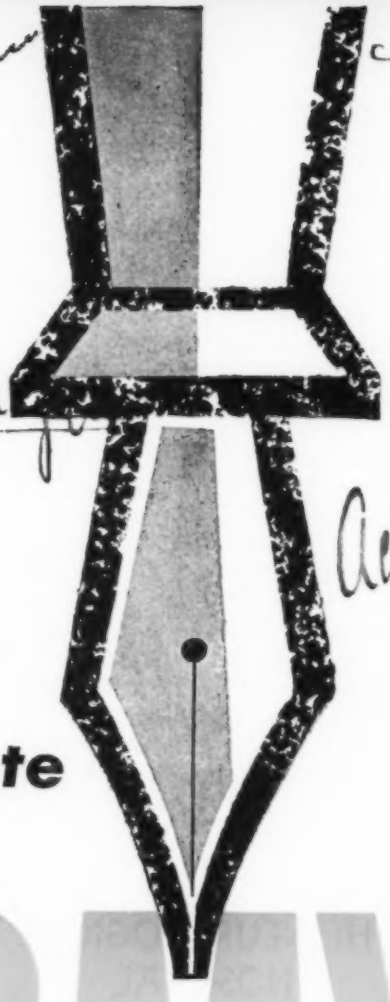

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Deaths

JAMES I. LYON, M.D.
1870-1955

J. I. Lyon, M.D., retired Edmond physician, died July 11 in an Oklahoma City hospital following a long illness.

A native of Cedar county, Mo., Doctor Lyon attended Warrensburg State Normal college and received his medical education at Kansas City Medical College. He practiced in Humansville, Mo. before moving to Oklahoma in 1889, settling in McLoud. After 10 years he moved to Oklahoma City where he practiced until 1911 when he moved to Edmond. Active in community projects, he was a former member of the school board, a member of the Masonic lodge and the First Christian church. He was an Honorary Member of the State Medical Association.

S. M. TONEY, M.D.
1881-1955

S. M. Toney, M.D., pioneer Bryan county physician, died at his home in Bennington July 12 following a long illness. He had lived in Bennington since early statehood.

Doctor Toney was born at Hawkins, Texas, November 7, 1881. He received his medical education at Physicians and Surgeons College, St. Louis.

T. L. HENRY, M.D.
-1955

T. L. Henry, M.D., who practiced medicine in Latimer County for 44 years, died July 27 after a long illness.

Doctor Henry graduated from the Arkansas School of Medicine in 1910, settling near Patterson, Okla.

WILLIAM J. WHITAKER, M.D.
1883-1955

William J. Whitaker, M.D., retired Pryor physician who had made his home in Dallas for the past eight years, died in a Dallas hospital August 2 after a short illness.

Doctor Whitaker operated a hospital and practiced in Pryor many years until his retirement in 1942. He was a native of North Carolina. Funeral services were held in Pryor.

J. A. DILLARD, M.D.
1884-1955

James Albert Dillard, M.D., Waurika physician for the past 17 years died July 30.

Doctor Dillard was born December 9, 1884 at Melbourne, Ark. He attended the University of Arkansas Medical School and took postgraduate work at Chicago Polyclinic and the University of Chicago. He came to Oklahoma in 1921 and practiced in Kingfisher and Roger Mills counties before coming to Waurika.

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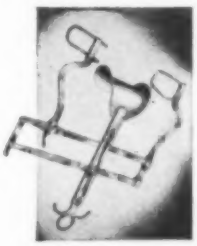

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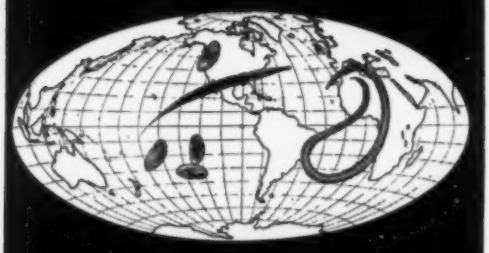

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New A.M.A. Drug Evaluation Program Outlined

A new program to give physicians timely information on the usefulness and safety of new drugs was announced by the Council on Pharmacy and Chemistry of the American Medical Association.

The council's announcement, in the July 30 *Journal of the American Medical Association*, is the first in a series by A.M.A. councils on programs inaugurated to replace various "seal-acceptance" activities discontinued in February.

The council will examine available published and unpublished evidence relating to the actions, uses, dosages, hazards, and other properties of drugs. It will not conduct clinical and laboratory tests. Reports of these evaluations will be published for the information of the medical profession.

For many years A.M.A. councils have evaluated products used by physicians and the public. In those programs, council seals were awarded to manufacturers and distributors of drugs, foods, devices, and cosmetics that met acceptance requirements.

"The evaluation of a multitude of individual brands, rather than classes of products, became so time-consuming that it threatened to inferfere with the broader aspects of the council programs," an accompanying Journal editorial said. " . . . new and more effective programs are being adopted by the scientific councils — programs that do not require the inspection of individual products or the issuance of seals."

After council members and other recognized experts have considered the scientific clinical and laboratory evidence, evaluation reports will be published in the *Journal* of the A.M.A. and in the council's annual publication, New and Nonofficial Remedies. Firms will be given an opportunity to comment on the reports before publication and due consideration will be given to their comments.

The council will not endorse, recommend, or guarantee any individual brand or preparation of a drug prescribed in New and Nonofficial Remedies.

Each drug evaluated by the council will be described by a common or non-brand name.

ANNOUNCEMENTS

Oklahoma City Clinical Society

October 24, 25, 26, 27, 1955. Biltmore Hotel, Oklahoma City.

A.M.A. Clinical Session

November 29-December 2, 1955. Boston.

Oklahoma Academy of General Practice

February 6-7, 1956, Tulsa Hotel, Tulsa, Oklahoma.

Oklahoma State Medical Assoication

May 6, 7, 8, 9, 1956. Municipal Auditorium, Oklahoma City.

Endocrine Society

Seventh annual postgraduate assembly, Indiana University School of Medicine, Indianapolis, September 26-October 1, 1955. Information regarding the program is available from the Postgraduate Office, Indiana University School of Medicine, 1100 West Michigan, Indianapolis 7, Ind.

American Urological Association

Urology Award particulars available from the Executive Secretary, 1120 N. Charles St., Baltimore, Maryland. Annual meeting will be held May 28-31, 1956, Statler Hotel, Boston.

American Congress of Physical Medicine and Rehabilitation

33rd Annual session, August 28-September 2, 1955, Hotel Statler, Detroit. Additional information can be had by writing the Congress at 30 N. Michigan Ave., Chicago 2, Ill.

American Goiter Association

Van Meter Prize Award of $300.00 is offered by the association for the best essay submitted concerning original work on problems related to the thyroid gland. Additional information can be obtained from the secretary, John C. McClintock, M.D., 149½ Washington Ave., Albany, N. Y. January 1, 1956 is the deadline for submission of essays.

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In clinical trials, over 80% of cases have been cleared of the infection by one course of treatment with 'Antepar.'

Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.: J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.: Brit. M. J. 2:755, 1953.

against ROUNDWORMS

"Ninety per cent of the children passed all of their ascarides . . ."

Brown, H. W.: J. Pediat. 45:419, 1954

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Have You Heard?

COOPER D. RAY, M.D. has opened his office in Altus. He graduated from Washington University School of Medicine in St. Louis.

LT. COL. RICHARD M. BURKE has been released from service and has re-opened his office in Oklahoma City.

H. K. BAILEY, M.D., a University of Oklahoma School of Medicine graduate, is now practicing in Dewey.

RICHARD L. WINTERS, M.D., University of Oklahoma graduate, has joined the Lowrey-Cunningham clinic in Poteau.

FRANCIS W. HOLLINGSWORTH, M.D., has returned to El Reno after serving a residency at Wesley Hospital in Oklahoma City.

M. H. NEWMAN, M.D., Shattuck, has been named to the State Board of Medical Examiners.

HARVEY D. ELKOURI, M.D. and MELVIN ARTHURS, M.D., have opened a clinic in Hinton. Both are graduates of the University of Oklahoma School of Medicine.

CHARLES D. HOLLAND, M.D. has opened his office in Broken Arrow.

TEX STONE, M.D. has joined BILL MCCURDY, M.D. and GEORGE LONG, M.D. in practice at the McCurdy Hospital and Clinic in Purcell.

WILLIAM A. GEIGER, JR., M.D. and WILLIAM G. MAYS, M.D. has opened the new Fairfax Clinic in that city.

DAVID FRIED, M.D., Mangum has been elected secretary of the American Medical Society of Vienna. He is attending the "Zeugnis" course in general surgery and urology at the University of Vienna Postgraduate School of Medicine.

ARTHUR W. BUSWELL, M.D., a graduate of the University of Oklahoma School of Medicine, has opened his office in Hennessey.

DAYTON ROSE, M.D. has reopened his practice in Okemah following his army service and residencies in Oklahoma City.

DAVIS T. HUNT, M.D., Mooreland, has been notified of his appointment to associate membership of the Committee on Trauma of the American College of Surgeons, Dist. 4.

QUENTIN T. BROOKS, M.D., is now associated with C. D. CUNNINGHAM, M.D., Ardmore. He has just completed a residency at Wesley Hospital, Oklahoma City.

(Continued on Page 328)

Home Medication . . .

The direction circular included in all packages of Bayer Aspirin has recently been published in full pages in leading national magazines reaching well over seventy-five million. Quoted below is a prominent paragraph from these directions.

IMPORTANT NOTICE!

The dosages of Bayer Aspirin recommended in these directions are appropriate for the aches and pains that may be treated by home medication. If these dosages do not bring relief and the pain persists, it is an indication that this particular pain is of a nature that requires the attention of a physician. Under these conditions, don't experiment with any other home medications. Consult your physician. He is the only one qualified to diagnose the cause of the persistent pain and prescribe the remedy best suited to your individual needs. This is particularly true of continuing severe pains of Arthritis, Rheumatism, Sciatica, Bursitis and Neuritis.

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HAVE YOU HEARD

(Continued from Page 326)

R. L. CURTIS, M.D., University of Oklahoma School of Medicine graduate from Oklahoma City, is now on duty in Heidelberg, Germany with the 130th army station hospital. He is a captain.

HUGH H. CONNOR, M.D. and JOHN H. ENNIS, M.D., both University of Oklahoma School of Medicine graduates, have opened their new hospital and clinic in Cyril.

WILBUR G. LAWSON, M.D., pediatrician, has joined the Newman Clinic in Shattuck.

PAUL V. ANNADOWN, M.D., Sulphur, was honored on his 72nd birthday with a party in Platt National Park. Approximately 350 of his friends from the surrounding area attended the celebration.

C. E. CALHOUN, M.D., Sand Springs physician who has been in practice for 52 years, will close his downtown office in September and practice from his home.

JOSEPH G. SMITH, M.D., Bartlesville, has given the Department of Archives at the University of Oklahoma his obstetrical records from 1911 to 1955. His records 1903 to 1910 were destroyed by fire.

H. A. ELLIS, M.D., pioneer Kiowa physician who has practiced medicine 56 years, was honored with a Doctor Ellis Day recently. Approximately 2,000 people gathered for the celebration. Stores and business houses in Kiowa closed for the celebration and a rodeo was held in the afternoon following a barbecue at noon.

Named Pediatrics Head

Dr. Henry B. Strenge became the first fulltime head of the Department of Pediatrics at the University of Oklahoma School of Medicine on July 1, 1955. He succeeds Dr. Clark H. Hall, a practicing pediatrician, who will continue as professor of pediatrics. This is in line with the school's policy of having fulltime men to head the major clinical departments.

A graduate of Yale University School of Medicine, Doctor Strenge interned at New Haven Hospital, New Haven, Conn. He completed his residency work in pediatrics at Strong Memorial Hospital, Rochester, N. Y. Doctor Strenge has been on the University of Oklahoma faculty since 1947.

Announcing The Twenty-Fifth Annual Conference of the

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ELMER HESS, M.D., President, AMERICAN MEDICAL ASSOCIATION, Erie, Pennsylvania

JAMES H. ALLEN, M.D., *Ophthalmology*, Professor and Chairman, Department of Ophthalmology, Tulane University of Louisiana School of Medicine, New Orleans, Louisiana.

EDWARD P. CAWLEY, M.D., *Dermatology*, Professor and Chairman, Department of Dermatology and Syphilology, University of Virginia Department of Medicine, Charlottesville, Virginia.

RICHARD V. EBERT, M.D., *Medicine*, Professor and Head, Department of Medicine, University of Arkansas School of Medicine, Little Rock, Arkansas.

KEITH S. GRIMSON, M.D., *Surgery*, Professor of Surgery, Duke University School of Medicine, Durham, North Carolina.

JOHN R. HANNAN, M.D., *Radiology*, Clinical Instructor in Radiology, Western Reserve University School of Medicine, Cleveland, Ohio.

ARILD E. HANSEN, M.D., *Pediatrics*, Professor and Chairman, Department of Pediatrics, University of Texas School of Medicine, Galveston, Texas.

CARL P. HUBER, M.D., *Obstetrics*, Professor and Chairman, Department of Obstetrics and Gynecology, Indiana University School of Medicine, Indianapolis, Indiana.

RAYMOND J. JACKMAN, M.D., *Proctology*, Associate professor Proctology, Graduate School of Medicine, University of Minnesota, Rochester, Minnesota.

EMANUEL M. PAPPER, M.D., *Anesthesiology*, Professor of Anesthesiology, Columbia University College of Physicians and Surgeons, New York City, New York.

HOMER E. PRINCE, M.D., *Allergy*, Clinical Professor of Medicine, Baylor University College of Medicine, Houston, Texas.

CLYDE L. RANDALL, M.D., *Gynecology*, Professor of Obstetrics and Gynecology, University of Buffalo School of Medicine, Buffalo, New York.

LOWELL A. RANTZ, M.D., *Medicine*, Professor of Medicine, Stanford University School of Medicine, San Francisco, California.

EDWARD B. SMITH, M.D., *Pathology*, Professor and Chairman, Department of Pathology, Indiana University School of Medicine, Indianapolis, Indiana.

DANA M. STREET, M.D., *Orthopedics*, Chief, Orthopedic Section, Veterans Administration Medical Teaching Group Hospital, Memphis, Tennessee.

EVERETT D. SUGARBAKER, M.D., *Surgery*, Surgical Staff, St. Mary's Hospital, Jefferson City, Missouri.

THEODORE A. WATTERS, M.D., *Psychiatry*, Clinical Professor of Neuropsychiatry, Louisiana State University School of Medicine, New Orleans, Louisiana.

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